

107th CONGRESS
1st SESSION

S. _____

To provide for a comprehensive and balanced national energy policy.

Mr. BINGAMAN (for himself and Mr. DASCHLE, Mr. AKAKA, Mr. BAUCUS, Mr. BREAUX, Ms. CANTWELL, Mr. DORGAN, Mrs. FEINSTEIN, Mr. LEAHY, Mr. REID, Mr. SCHUMER, Mr. KENNEDY, Mrs. MURRAY _____

introduced the following bill; which was read twice and referred to _____.

A BILL

To provide for a comprehensive and balanced national energy policy.

1 *Be it enacted by the Senate and House of Representatives of the United States of America in*
2 *Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Comprehensive and Balanced Energy Policy Act of 2001.”

5 **SEC. 2. ORGANIZATION OF ACT INTO DIVISIONS; TABLE OF CONTENTS.**

6 (a) DIVISIONS.—This Act is organized into five divisions as follows:

7 (1) Division A— National Energy Policy Planning and Coordination.

8 (2) Division B— Reliable and Diverse Power Generation and Transmission.

9 (3) Division C— Domestic Oil and Gas Production and Transportation.

(4) Division D– Diversifying Energy Demand and Improving Efficiency.

(5) Division E– Enhancing Research, Development, and Training.

(b) TABLE OF CONTENTS.– The table of contents for this Act is as follows:

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- Sec. 701. Alternative conditions.
- Sec. 702. Disposition of hydroelectric charges.
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4 **AND TRANSPORTATION**

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DIVISION A—NATIONAL ENERGY POLICY PLANNING AND COORDINATION

TITLE I – INTEGRATION OF ENERGY POLICY AND CLIMATE CHANGE POLICY

Subtitle A – National Commission on Energy and Climate Change

SEC. 101. NATIONAL COMMISSION ON ENERGY AND CLIMATE CHANGE.

(a) ESTABLISHMENT.— There is established a National Commission on Energy and Climate Change, which shall be an independent establishment within the executive branch.

(b) MEMBERS.—

(1) APPOINTMENT.— The Commission shall consist of 11 members who shall be appointed by the President not later than 30 days after the date of enactment of this title.

(2) COMPOSITION.— The members of the Commission shall be—

(A) eminent in the field of—

(i) energy production, distribution, or conservation,

(ii) energy science or technology,

(iii) environmental sciences,

(iv) global change sciences, or

(v) energy economics; and

(B) selected to reflect a fair balance among the points of view represented.

(3) POLITICAL AFFILIATION.— No more than 6 members of the Commission may be members of the same political party as the President. Not less than half of the members of the

minority party shall be appointed from among a list of 12 persons nominated by the Democratic Leader of the United States Senate and the Minority Leader of the United States House of Representatives.

(4) CHAIRPERSON.— The President shall designate a member of the Commission to serve as its chairperson.

(5) TERM.— Members shall be appointed for the life of the Commission and may be removed by the President only for inefficiency, neglect of duty, or malfeasance in office.

(6) VACANCIES.— Any vacancy in the Commission shall be filled in the same manner as the original appointment.

SEC. 102. DUTIES OF THE COMMISSION.

(a) ENERGY AND CLIMATE CHANGE STUDY.—

(1) IN GENERAL.— The Commission shall conduct a study of measures that—

(A) could achieve stabilization of greenhouse gas emissions in the United States—

(i) at the 1990 level by not later than 2010; and

(ii) below the 1990 level by not later than 2020;

(B) are consistent with the goals of an overall United States energy and environmental policy; and

(C) will lead to the long-term stabilization of greenhouse gas concentrations.

(2) TYPES OF MEASURES.— The measures to be studied under paragraph (1) shall include—

(A) a variety of cost-effective Federal and State policies, programs, standards,

1 and incentives;

2 (B) a domestic or international system that integrates innovative, market-
3 based solutions; and

4 (C) participation in other international institutions, or in the support of
5 international activities, that are established to achieve economically and
6 environmentally sound greenhouse gas stabilization solutions.

7 (b) RECOMMENDATIONS.— The Commission shall develop recommendations concerning—

8 (1) the measures described in subsection (a)(1) that the Commission determines to
9 be appropriate for implementation, giving preference to cost-effective, voluntary, and
10 technologically feasible measures that will—

11 (A) produce measurable net reductions in United States emissions that lead
12 toward the stabilization described in subsection (a)(1)(A); and

13 (B) minimize any adverse impacts on the economy of the United States; and

14 (2) the text of legislation and administrative actions that would be necessary to
15 effectuate the measures.

16 (c) STRATEGY.—

17 (1) IN GENERAL.— Not later than one year after the date of enactment of this title,
18 the Commission shall develop and submit to the Congress a United States greenhouse gas
19 management strategy that contains—

20 (A) a detailed statement of the findings and conclusions of the Commission;

21 (B) the recommendations of the Commission for such legislative and
22 administrative actions as the Commissions considers appropriate; and

(C) appropriate funding recommendations to carry out the recommendations under subparagraph (B).

(2) REQUIRED RECOMMENDATIONS.— Recommendations under paragraph (1)(B) shall include specific recommendations concerning—

(A) the development of—

(i) advanced technologies for a full range of energy sources;

(ii) enhanced energy efficiency and conservation measures; and

(iii) alternative energy technologies and energy sources;

(B) economically and environmentally sound emission reduction strategies to stabilize atmospheric concentrations of greenhouse gases;

(C) such changes in institutional and technological systems as are necessary to adapt to climate change in the near term and the long term; and

(D) such review, modification, and enhancement of the scientific and economic research efforts of the United States, and improvements to the data resulting from such research, as are appropriate to improve the accuracy of predictions concerning climate change and economic costs and opportunities.

SEC. 103. POWERS OF THE COMMISSION.

(a) HEARINGS.— The Commission may hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence as the Commission considers advisable to carry out the duties of the Commission under this title.

(b) INFORMATION FROM FEDERAL AGENCIES.— The Commission may secure directly from any Federal department or agency such information as the Commission considers necessary to

1 carry out the duties of Commission under this title. Upon request of the Chairperson of the
2 Commission, the head of such department or agency shall furnish such information to the
3 Commission.

4 (c) POSTAL SERVICES.— The Commission may use the United States mails in the same
5 manner and under the same conditions as other departments and agencies of the Federal
6 Government.

7 **SEC. 104. COMMISSION PERSONNEL MATTERS.**

8 (a) COMPENSATION OF MEMBERS.— A member of the Commission shall be
9 compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level
10 IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day
11 (including travel time) during which the member is engaged in the performance of the duties of the
12 Commission.

13 (b) TRAVEL EXPENSES.— A member of the Commission shall be allowed travel expenses,
14 including per diem in lieu of subsistence, at rates authorized for an employee of an agency under
15 subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place
16 of business of the member in the performance of the duties of the Commission.

17 (c) STAFF.—

18 (1) APPOINTMENT.— The Chairperson of the Commission may, without regard to
19 the civil service laws and regulations, appoint and terminate an executive director and such
20 other additional personnel as may be necessary to enable the Commission to perform its
21 duties. The appointment and termination of the executive director shall be subject to
22 confirmation by the Commission.

1 (2) COMPENSATION.—

2 (A) IN GENERAL.— Except as provided in subparagraph (B), the Chairperson
3 of the Commission may fix the compensation of the executive director and other
4 personnel without regard to the provisions of chapter 51 and subchapter III of chapter
5 53 of title 5, United States Code, relating to classification of positions and General
6 Schedule pay rates.

7 (B) MAXIMUM RATE OF PAY.— The rate of pay for the executive director
8 and other personnel may not exceed the rate payable for level V of the Executive
9 Schedule under section 5316 of title 5, United States Code.

10 (d) DETAIL OF GOVERNMENT EMPLOYEES.— Upon the request of the Chairperson of
11 the Commission, the head of any Federal department or agency may detail employees to the
12 Commission without reimbursement, and without interruption or loss of civil service status or
13 privilege.

14 (e) PROCUREMENT OF TEMPORARY OR INTERMITTENT SERVICES.— The
15 Chairperson of the Commission may procure temporary and intermittent services in accordance with
16 section 3109(b) of title 5, United States Code, at rates for individuals that do not exceed the daily
17 equivalent of the annual rate of basic pay prescribed for level V of the Executive Schedule under
18 section 5316 of that title.

19 **SEC. 105. TERMINATION.**

20 The Commission shall terminate 90 days after the date on which the Commission submits
21 the report under section 102(b).

22 **SEC. 106. AUTHORIZATION OF APPROPRIATIONS.**

1 There are authorized to be appropriated such sums as may be necessary to carry out this
2 section, which shall remain available until expended.

3 **SEC. 107. DEFINITION OF COMMISSION.**

4 For purposes of this title, the term “Commission” means the National Commission on Energy
5 and Climate Change established by section 101(a).

6 *Subtitle B – International Clean Energy Technology Transfer*

7 **SEC. 111. INTERNATIONAL CLEAN ENERGY TECHNOLOGY TRANSFER.**

8 (a) DEFINITIONS.— In this section:

9 (1) CLEAN ENERGY TECHNOLOGY.— The term “clean energy technology” means an
10 energy supply or end-use technology that, over its lifecycle and compared to a similar technology
11 already in commercial use in developing countries or countries in transition—

12 (A) emits substantially lower levels of pollutants or greenhouse gases; and

13 (B) generates substantially smaller or less toxic volumes of solid or liquid waste.

14 (2) INTERAGENCY WORKING GROUP.— The term “interagency working group” means
15 the Interagency Working Group on Clean Energy Technology Transfer established under subsection
16 (b).

17 (b) INTERAGENCY WORKING GROUP.—

18 (1) ESTABLISHMENT.— Not later than 180 days after the date of enactment of this section,
19 the Secretary of Energy, the Secretary of Commerce, and the Administrator of the U.S. Agency for
20 International Development shall jointly establish a Interagency Working Group on Clean Energy
21 Technology Transfer. The interagency working group will focus on the transfer of clean energy
22 technology to the developing countries and countries in transition that are expected to experience,

1 over the next 20 years, the most significant growth in energy production and associated greenhouse
2 gas emissions.

3 (2) MEMBERSHIP.— The interagency working group shall be jointly chaired by
4 representatives appointed by the agency heads under paragraph (1) and shall also include
5 representatives from the Department of State, the Department of Treasury, the Environmental
6 Protection Agency, the Export-Import Bank, the Overseas Private Investment Corporation, the Trade
7 and Development Agency, and other federal agencies as deemed appropriate by all three agency head
8 under paragraph (1).

9 (3) DUTIES.— The interagency working group shall—

10 (A) analyze technology, policy, and market opportunities for international
11 development, demonstration, and deployment of clean energy technology;

12 (B) investigate issues associated with building capacity to deploy clean energy
13 technology in developing countries and countries in transition, including—

14 (i) energy-sector reform;

15 (ii) creation of open, transparent, and competitive markets for energy
16 technologies;

17 (iii) availability of trained personnel to deploy and maintain the technology;

18 and

19 (iv) demonstration and cost-buydown mechanisms to promote first adoption
20 of the technology;

21 (C) consult with the private sector and other interested groups on the export and
22 deployment of clean energy technology;

(D) monitor each agency's progress towards meeting goals in the 5-year strategic plan submitted to Congress pursuant to the Energy and Water Development Appropriations Act, 2001;

(E) make recommendations to heads of appropriate Federal agencies on ways to streamline federal programs and policies improve each agency's role in the international development, demonstration, and deployment of clean energy technology.

(c) FEDERAL SUPPORT FOR CLEAN ENERGY TECHNOLOGY TRANSFER.--

Notwithstanding any other provision of law, each federal agency or government corporation carrying out an assistance program in support of the activities of United States persons in the environment or energy sector of a developing country or country in transition shall support, to the maximum extent practicable, the transfer of United States clean energy technology as part of that program.

(d) AUTHORIZATION OF APPROPRIATIONS.--There are authorized to be appropriated to the departments, agencies, and entities of the United States described in subsection (b) such sums as may be necessary to support the transfer of clean energy technology, consistent with the subsidy codes of the World Trade Organization, as part of assistance programs carried out by those departments, agencies, and entities in support of activities of United States persons in the energy sector of a developing country or country in transition.

TITLE II--REGIONAL COORDINATION ON ENERGY INFRASTRUCTURE

SEC. 201. POLICY ON REGIONAL COORDINATION.

(a) STATEMENT OF POLICY.-- It is the policy of the Federal Government to encourage States to coordinate, on a regional basis, State energy policies to provide reliable and affordable energy services to the public while minimizing the impact of providing energy services on

communities and the environment.

(b) DEFINITION OF ENERGY SERVICES.— For purposes of this section, the term “energy services” means—

- (1) the generation or transmission of electric energy,
- (2) the transportation, storage, and distribution of crude oil, residual fuel oil, refined petroleum product, or natural gas, or
- (3) the reduction in load through increased efficiency, conservation, or load control measures.

SEC. 202. FEDERAL SUPPORT FOR REGIONAL COORDINATION.

(a) TECHNICAL ASSISTANCE.— The Secretary of Energy may provide technical assistance to States and regional organizations formed by two or more States to assist them in coordinating their energy policies on a regional basis. Such technical assistance may include assistance in—

- (1) assessing future supply availability and demand requirements,
- (2) planning and siting additional energy infrastructure, including generating facilities, electric transmission facilities, pipelines, refineries, and distributed generation facilities to meet regional needs,
- (3) identifying and resolving problems in distribution networks,
- (4) developing plans to respond to surge demand or emergency needs, and
- (5) developing energy efficiency, conservation, and load control programs.

(b) ANNUAL CONFERENCE ON REGIONAL ENERGY COORDINATION.—

(1) ANNUAL CONFERENCE.— The Secretary of Energy shall convene an annual conference to promote regional coordination on energy policy and infrastructure issues.

1 (2) PARTICIPATION.— The Secretary of Energy shall invite appropriate representatives of
2 federal, state, and regional energy organizations, and other interested parties.

3 (3) FEDERAL AGENCY COOPERATION.— The Secretary of Energy shall consult and
4 cooperate with the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce,
5 the Secretary of the Treasury, the Chairman of the Federal Energy Regulatory Commission, the
6 Administrator of the Environmental Protection Agency, and the Chairman of the Council on
7 Environmental Quality in the planning and conduct of the conference.

8 (4) AGENDA.— The Secretary of Energy, in consultation with the officials identified in
9 paragraph (3) and participants identified in paragraph (2), shall establish an agenda for each
10 conference that promotes regional coordination on energy policy and infrastructure issues.

11 (5) RECOMMENDATIONS.— Not later than 60 days after the conclusion of each annual
12 conference, the Secretary of Energy shall report to the President and the Congress recommendations
13 arising out of the conference that may improve—

14 (A) regional coordination on energy policy and infrastructure issues, and

15 (B) federal support for regional coordination.

16 **TITLE III—REGULATORY REVIEWS AND STUDIES**

17 **SEC. 301. REGULATORY REVIEWS FOR NEW TECHNOLOGIES AND PROCESSES**

18 (a) REGULATORY REVIEWS.— Not later than one year after the date of enactment of this
19 section and every five years thereafter, each Federal agency shall review its regulations and standards
20 to identify—

21 (1) existing regulations or standards that act as barriers to market entry for emerging
22 energy technologies (including fuel cells, combined heat and power, distributed generation,

and small-scale renewable energy), and

(2) actions the agency is taking or could take to—

(A) remove barriers to market entry for emerging energy technologies,

(B) increase energy efficiency, or

(C) encourage the use of new processes to meet energy and environmental goals.

(b) REPORT TO CONGRESS.— Not later than 18 months after the date of enactment of this section, and every five years thereafter, the Director of the Office of Science and Technology Policy shall report to the Congress on the results of the agency reviews conducted under subsection (a).

(c) CONTENTS OF THE REPORT.— The report shall—

(1) identify all regulatory barriers to the development and commercialization of emerging energy technologies and processes,

(2) actions taken, or proposed to be taken, to remove such barriers, and

(3) recommendations for changes in laws or regulations that may be needed to—

(A) expedite the siting and development of energy production and distribution facilities,

(B) encourage the adoption of energy efficiency and process improvements, and

(C) reduce the environmental impacts of energy facilities through transparent and flexible compliance methods.

SEC. 302. REVIEW OF FERC POLICIES ON TRANSMISSION AND WHOLESALE POWER MARKETS.

1 (a) STUDY.— The Federal Energy Regulatory Commission shall reevaluate its regulatory
2 policies on the transmission of electric energy and wholesale power rates.

3 (b) SCOPE OF STUDY.— The study shall—

4 (1) reevaluate the methods and models for determining market power, taking into
5 account the experience in the Western power grid,

6 (2) reevaluate the adequacy and appropriateness of the Commission’s definition of
7 “market power” as applied to wholesale power markets and the transmission grid,

8 (3) analyze the impact of wholesale price volatility on power markets and the effect
9 on the national interest in a reliable and affordable electricity system,

10 (4) reevaluate the Commission’s policies on transmission, specifically identifying
11 policy changes that may be needed to ensure adequate construction of transmission capacity
12 and operating procedures to ensure the most efficient use of the transmission grid, and

13 (5) determine the adequacy of the Commission’s voluntary approach to forming
14 regional transmission organizations.

15 (c) REPORT.— The Commission shall report its findings to the Congress not later than 120
16 days after the date of the enactment of this section.

17 **SEC. 303. STUDY OF POLICIES TO ADDRESS VOLATILITY IN DOMESTIC OIL AND**
18 **GAS INVESTMENT.**

19 (a) STUDY.—The Secretary of Energy, in close coordination with the Secretary of the
20 Interior, the Secretary of Commerce, the Secretary of Treasury, and the Interstate Oil and Gas
21 Compact Commission, shall evaluate the impact existing federal and state tax and royalty policies
22 have on the development of domestic oil and gas resources.

(b) SCOPE OF STUDY.-- The study under subsection (a) shall analyze--

(1) the impact on development and drilling of different price scenarios for oil and natural gas;

(2) the impact of the Alternative Minimum Tax and fixed royalty rates on maintaining development drilling during periods of depressed prices;

(3) the effect of Federal and state tax and royalty policies on investment in different geological and developmental circumstances, including but not limited to deepwater environments, subsalt formations, well-depth environments, coalbed methane and other unconventional gas formations, and Arctic conditions; and

(4) compare those policies with tax and royalty regimes in other countries with similar geological, developmental and infrastructure conditions.

(b) Upon completion of the study under subsection (a), a report describing the findings and recommendations for policy changes shall be provided to the Congress and the Governors of the member states of the Interstate Oil and Gas Compact Commission. The recommendations should ensure that the public interest in receiving the economic benefits of tax and royalty revenues is balanced against the need for revised policies to--

(1) maintain adequate natural gas development drilling during periods of low world oil prices;

(2) ameliorate the boom-bust cycles negatively affecting the oil and gas service industry; and

(3) ensure a consistent level of domestic activity to encourage the education and retention of a technical workforce.

(c) The study under subsection (a) shall be completed not later than 240 days after the date of enactment of this section. The report required in (b) shall be transmitted to Congress not later

1 than 60 days following the completion of the study.

2 **SEC. 304. POWER MARKETING ADMINISTRATION RIGHTS-OF-WAY STUDY.**

3 The Secretary of Energy shall conduct a study of the rights-of-way owned by the Federal
4 power marketing agencies and the Tennessee Valley Authority to determine their location and
5 whether they can be used by pipelines or other transmission services where new capacity is needed.
6 Not later than one year after the date of enactment of this section, the Secretary shall transmit a
7 report to Congress summarizing the results of the study.

8 **SEC. 305. REVIEW OF NATURAL GAS PIPELINE CERTIFICATION PROCEDURES.**

9 (a) FERC REVIEW.— The Federal Energy Regulatory Commission shall, in consultation with
10 other appropriate Federal agencies, conduct a comprehensive review of policies, procedures, and
11 regulations for the certification of natural gas pipelines to determine how to reduce the cost and time
12 of obtaining a certificate. The Commission shall report its findings and any recommendations for
13 legislation to the Committee on Energy and Natural Resources of the United States Senate and the
14 Committee on Energy and Commerce of the United States House of Representatives not later than
15 6 months after the date of enactment of this section.

16 (a) INTERAGENCY REVIEW.— The Chairman of the Council on Environmental Quality,
17 in coordination with the Federal Energy Regulatory Commission, shall establish an interagency task
18 force to develop an interagency memorandum of understanding to expedite the environmental review
19 and permitting of natural gas pipeline projects.

20 (b) MEMBERSHIP OF INTERAGENCY TASK FORCE.— The task force shall consist of—

21 (1) the Chairman of the Council on Environmental Quality, who shall serve as the
22 Chairman of the interagency task force,

(2) the Chairman of the Federal Energy Regulatory Commission,
(3) the Director of the Bureau of Land Management,
(4) the Director of the U.S. Fish and Wildlife Service,
(5) the Commanding General, U.S. Army Corps of Engineers,
(6) the Chief of the Forest Service,
(7) the Administrator of the Environmental Protection Agency,
(8) the Chairman of the Advisory Council on Historic Preservation, and
(9) and the heads of such other agencies as the Chairman of the Council on Environmental Quality and the Chairman of the Federal Energy Regulatory Commission deem appropriate.

(c) MEMORANDUM OF UNDERSTANDING.— The agencies represented by the members of the interagency task force shall enter into the memorandum of understanding not later than one year after the date of the enactment of this section.

SEC. 306. STREAMLINING FUEL SPECIFICATIONS.

(a) REPORT.— Not later than nine months after the date of enactment of this title, the Administrator of the Environmental Protection and the Secretary of Energy shall jointly report to the Congress on the technical and economic feasibility of developing national or regional vehicle fuel specifications for the contiguous United States that would—

- (1) enhance flexibility in the distribution of fuels,
- (2) reduce price volatility and costs to consumers and producers, and
- (3) meet local, regional, and national air quality requirements and goals.

(b) RECOMMENDATIONS.— The report shall include recommendations for appropriate

changes to existing laws and regulations.

(c) CONSULTATION.— The Administrator and the Secretary shall consult with the Governors of the several States, automobile manufacturers, vehicle fuel producers and distributors, and the public in the preparation of the report.

SEC. 307. STUDY OF FINANCING FOR NEW TECHNOLOGIES.

(a) INDEPENDENT ASSESSMENT.— The Secretary of Energy shall commission an independent assessment of innovative financing techniques to facilitate construction of new electricity supply technologies that might not otherwise be built in a competitive electricity market.

(b) CONDUCT OF THE ASSESSMENT.— The Secretary shall retain an independent contractor with proven expertise in financing large capital projects or in financial services consulting to conduct the assessment.

(c) CONTENT OF THE ASSESSMENT.— The assessment shall include a comprehensive examination of all available techniques to safeguard private investors against risks (including both market-based and government-imposed risks) that are beyond the control of the investors. Such techniques may include Federal loan guarantees, Federal price guarantees, special tax considerations, and direct Federal investment.

(d) REPORT.— The Secretary shall submit the results of the independent assessment to the Congress not later than 9 months after the date of enactment of this section.

SEC. 308. STUDY ON THE USE OF THE STRATEGIC PETROLEUM RESERVE.

(a) REPORT.— The Secretary of Energy shall report to the President and to the Committee on Energy and Natural Resources of the United States Senate and the Committee on Energy and Commerce of the United States House of Representatives, not later than 6 months after the date of

enactment of this title, on whether section 161 of the Energy Policy and Conservation Act (42 U.S.C. 6241) should be amended to give the Secretary greater flexibility to drawdown and distribute the Reserve to mitigate price volatility or regional supply shortages.

(b) CONTENTS OF THE REPORT.— The Secretary shall include in the report—

(1) an assessment of how extreme market conditions in the past (including, in particular, the conditions between July 1990 and February 1991) may have been mitigated by more timely use of the Reserve, and

(2) specific recommendations for any changes in the existing law the Secretary determines to be necessary or desirable and a statement of the reasons for any such changes.

DIVISION B— DIVERSE AND RELIABLE POWER

GENERATION AND TRANSMISSION

TITLE IV—ELECTRIC ENERGY TRANSMISSION RELIABILITY

SEC. 401. ELECTRIC RELIABILITY ORGANIZATION AND OVERSIGHT.

(a) IN GENERAL.— Part II of the Federal Power Act (16 U.S.C. 824-824m) is amended by adding at the end the following:

“SEC. 216. ELECTRIC RELIABILITY ORGANIZATION AND OVERSIGHT.

“(a) DEFINITIONS- As used in this section:

“(1) AFFILIATED REGIONAL RELIABILITY ENTITY- The term ‘affiliated regional reliability entity’ means an entity delegated authority under the provisions of subsection (h).

“(2) BULK POWER SYSTEM- The term ‘bulk power system’ means all facilities and control systems necessary for operating an interconnected transmission grid (or any portion thereof), including high-voltage transmission lines; substations; control centers; communications; data, and

1 operations planning facilities; and the output of generating units necessary to maintain transmission
2 system reliability.

3 “(3) ELECTRIC RELIABILITY ORGANIZATION, OR ORGANIZATION- The term
4 ‘Electric Reliability Organization’ or ‘Organization’ means the organization approved by the
5 Commission under subsection (d)(4).

6 “(4) ENTITY RULE- The term ‘entity rule’ means a rule adopted by an affiliated regional
7 reliability entity for a specific region and designed to implement or enforce one or more Organization
8 Standards. An entity rule shall be approved by the organization and once approved, shall be treated
9 as an Organization Standard.

10 “(5) INDUSTRY SECTOR- The term ‘industry sector’ means a group of users of the bulk
11 power system with substantially similar commercial interests, as determined by the Board of the
12 Electric Reliability Organization.

13 “(6) INTERCONNECTION- The term ‘interconnection’ means a geographic area in which
14 the operation of bulk power system components is synchronized such that the failure of one or more
15 of such components may adversely affect the ability of the operators of other components within the
16 interconnection to maintain safe and reliable operation of the facilities within their control.

17 “(7) ORGANIZATION STANDARD- The term ‘Organization Standard’ means a policy or
18 standard duly adopted by the Electric Reliability Organization to provide for the reliable operation
19 of a bulk power system.

20 “(8) PUBLIC INTEREST GROUP- The term ‘public interest group’ means any nonprofit
21 private or public organization that has an interest in the activities of the Electric Reliability
22 Organization, including, but not limited to, ratepayer advocates, environmental groups, and State and

1 local government organizations that regulate market participants and promulgate government policy.

2 “(9) VARIANCE- The term `variance' means an exception or variance from the requirements
3 of an Organization Standard (including a proposal for an Organization Standard where there is no
4 Organization Standard) that is adopted by an affiliated regional reliability entity and applicable to
5 all or a part of the region for which the affiliated regional reliability entity is responsible. A variance
6 shall be approved by the organization and once approved, shall be treated as an Organization
7 Standard.

8 “(10) SYSTEM OPERATOR- The term `system operator' means any entity that operates or
9 is responsible for the operation of a bulk power system, including but not limited to a control area
10 operator, an independent system operator, a regional transmission organization, a transmission
11 company, a transmission system operator, or a regional security coordinator.

12 “(11) USER OF THE BULK POWER SYSTEM- The term `user of the bulk power system'
13 means any entity that sells, purchases, or transmits electric power over a bulk power system, or that
14 owns, operates, or maintains facilities or control systems that are part of a bulk power system, or that
15 is a system operator.

16 “(b) COMMISSION AUTHORITY.—

17 “(1) Within the United States, the Commission shall have jurisdiction over the Electric
18 Reliability Organization, all affiliated regional reliability entities, all system operators, and all users
19 of the bulk-power system, for purposes of approving and enforcing compliance with the
20 requirements of this section.

21 “(2) The Commission may, by rule, define any other term used in this section, provided such
22 definition is consistent with the definitions in, and the purpose and intent of, this Act.

1 “(3) Not later than 90 days after the date of enactment of this section, the Commission shall
2 issue a proposed rule for implementing the requirements of this section. The Commission shall
3 provide notice and opportunity for comment on the proposed rule. The Commission shall issue a
4 final rule under this subsection within 180 days after the date of enactment of this section.

5 “(4) Nothing in this section shall be construed as limiting or impairing any authority of the
6 Commission under any other provision of this Act, including its exclusive authority to determine
7 rates, terms, and conditions of transmission services subject to its jurisdiction.

8 “(c) EXISTING RELIABILITY STANDARDS.— Following enactment of this section, and
9 prior to the approval of an organization under subsection (d), any entity, including the North
10 American Electric Reliability Council and its member regional reliability councils, may file any
11 reliability standard, guidance, or practice that such entity would propose to be made mandatory and
12 enforceable. The Commission, after allowing an opportunity to submit comments, may approve any
13 such proposed mandatory standard, guidance, or practice, or any amendment thereto, if it finds that
14 the standard, guidance, or practice, or amendment is just, reasonable, not unduly discriminatory or
15 preferential, and in the public interest. The Commission may, without further proceeding or finding,
16 grant its approval to any standard, guidance, or practice for which no substantive objections are filed
17 in the comment period. Filed standards, guidances, or practices, including any amendments thereto,
18 shall be mandatory and applicable according to their terms following approval by the Commission
19 and shall remain in effect until--

20 “(1) withdrawn, disapproved, or superseded by an Organization Standard, issued or approved
21 by the Electric Reliability Organization and made effective by the Commission under subsection (e);
22 or

1 “(2) disapproved by the Commission if, upon complaint or upon its own motion and after
2 notice and an opportunity for comment, the Commission finds the standard, guidance, or practice
3 unjust, unreasonable, unduly discriminatory, or preferential or not in the public interest.
4 Standards, guidances, or practices in effect pursuant to the provisions of this subsection shall be
5 enforceable by the Commission.

6 “(d) ORGANIZATION APPROVAL.—

7 “(1) Following the issuance of a final Commission rule under subsection (b)(3), an entity may
8 submit an application to the Commission for approval as the Electric Reliability Organization. The
9 applicant shall specify in its application its governance and procedures, as well as its funding
10 mechanism and initial funding requirements.

11 “(2) The Commission shall provide public notice of the application and afford interested
12 parties an opportunity to comment.

13 “(3) The Commission shall approve the application if the Commission determines that the
14 applicant--

15 “(A) has the ability to develop, implement, and enforce standards that provide for an
16 adequate level of reliability of the bulk power system;

17 “(B) permits voluntary membership to any user of the bulk power system or public
18 interest group;

19 “(C) assures fair representation of its members in the selection of its directors and fair
20 management of its affairs, taking into account the need for efficiency and effectiveness in
21 decisionmaking and operations and the requirements for technical competency in the
22 development of Organization Standards and the exercise of oversight of bulk power system

1 reliability;

2 “(D) assures that no two industry sectors have the ability to control, and no one
3 industry sector has the ability to veto, the Electric Reliability Organization's discharge of its
4 responsibilities (including actions by committees recommending standards to the board or
5 other board actions to implement and enforce standards);

6 “(E) provides for governance by a board wholly comprised of independent directors;

7 “(F) provides a funding mechanism and requirements that are just, reasonable, and
8 not unduly discriminatory or preferential and are in the public interest, and which satisfy the
9 requirements of subsection (I);

10 “(G) establishes procedures for development of Organization Standards that provide
11 reasonable notice and opportunity for public comment, taking into account the need for
12 efficiency and effectiveness in decisionmaking and operations and the requirements for
13 technical competency in the development of Organization Standards, and which standards
14 development process has the following attributes--

15 “(i) openness;

16 “(ii) balance of interests; and

17 “(iii) due process, except that the procedures may include alternative
18 procedures for emergencies;

19 “(H) establishes fair and impartial procedures for implementation and enforcement
20 of Organization Standards, either directly or through delegation to an affiliated regional
21 reliability entity, including the imposition of penalties, limitations on activities, functions,
22 or operations, or other appropriate sanctions;

1 “(I) establishes procedures for notice and opportunity for public observation of all
2 meetings, except that the procedures for public observation may include alternative
3 procedures for emergencies or for the discussion of information the directors determine
4 should take place in closed session, such as litigation, personnel actions, or commercially
5 sensitive information;

6 “(J) provides for the consideration of recommendations of States and State
7 commissions; and

8 “(K) addresses other matters that the Commission may deem necessary or appropriate
9 to ensure that the procedures, governance, and funding of the Electric Reliability
10 Organization are just, reasonable, not unduly discriminatory or preferential, and are in the
11 public interest.

12 “(4) The Commission shall approve only one Electric Reliability Organization. If the
13 Commission receives two or more timely applications that satisfy the requirements of this
14 subsection, the Commission shall approve only the application it concludes will best implement the
15 provisions of this section.

16 “(e) ESTABLISHMENT OF AND MODIFICATIONS TO ORGANIZATION
17 STANDARDS.–

18 “(1) The Electric Reliability Organization shall file with the Commission any new or
19 modified organization standards, including any variances or entity rules, and the Commission shall
20 follow the procedures under paragraph (2) for review of that filing.

21 “(2) Submissions under paragraph (1) shall include--

22 “(A) a concise statement of the purpose of the proposal, and

1 “(B) a record of any proceedings conducted with respect to such proposal.

2 The Commission shall provide notice of the filing of such proposal and afford interested entities 30
3 days to submit comments. The Commission, after taking into consideration any submitted comments,
4 shall approve or disapprove such proposal not later than 60 days after the deadline for the submission
5 of comments, except that the Commission may extend the 60-day period for an additional 90 days
6 for good cause, and except further that if the Commission does not act to approve or disapprove a
7 proposal within the foregoing periods, the proposal shall go into effect subject to its terms, without
8 prejudice to the authority of the Commission thereafter to modify the proposal in accordance with
9 the standards and requirements of this section. Proposals approved by the Commission shall take
10 effect according to their terms but not earlier than 30 days after the effective date of the
11 Commission's order, except as provided in paragraph (3) of this subsection.

12 “(3)(A) In the exercise of its review responsibilities under this subsection, the Commission
13 shall give due weight to the technical expertise of the Electric Reliability Organization with respect
14 to the content of a new or modified organization standard, but shall not defer to the organization with
15 respect to the effect of the standard on competition. The Commission shall approve a proposed new
16 or modified organization standard if it determines the proposal to be just, reasonable, not unduly
17 discriminatory or preferential, and in the public interest.

18 “(B) An existing or proposed organization standard which is disapproved in whole
19 or in part by the Commission shall be remanded to the Electric Reliability Organization for
20 further consideration.

21 “(C) The Commission, on its own motion or upon complaint, may direct the Electric
22 Reliability Organization to develop an organization standard, including modification to an

1 existing organization standard, addressing a specific matter by a date certain if the
2 Commission considers such new or modified organization standard necessary or appropriate
3 to further the purposes of this section. The Electric Reliability Organization shall file any
4 such new or modified organization standard in accordance with this subsection.

5 “(D) An affiliated regional reliability entity may propose a variance or entity rule to
6 the Electric Reliability Organization. The affiliated regional reliability entity may request that
7 the Electric Reliability Organization expedite consideration of the proposal, and may file a
8 notice of such request with the Commission, if expedited consideration is necessary to
9 provide for bulk-power system reliability. If the Electric Reliability Organization fails to
10 adopt the variance or entity rule, either in whole or in part, the affiliated regional reliability
11 entity may request that the Commission review such action. If the Commission determines,
12 after its review of such a request, that the action of the Electric Reliability Organization did
13 not conform to the applicable standards and procedures approved by the Commission, or if
14 the Commission determines that the variance or entity rule is just, reasonable, not unduly
15 discriminatory or preferential, and in the public interest, and that the Electric Reliability
16 Organization has unreasonably rejected the proposed variance or entity rule, then the
17 Commission may remand the proposed variance or entity rule for further consideration by
18 the Electric Reliability Organization or may direct the Electric Reliability Organization or
19 the affiliated regional reliability entity to develop a variance or entity rule consistent with that
20 requested by the affiliated regional reliability entity. Any such variance or entity rule
21 proposed by an affiliated regional reliability entity shall be submitted to the Electric
22 Reliability Organization for review and filing with the Commission in accordance with the

1 procedures specified in this subsection.

2 “(E) Notwithstanding any other provision of this subsection, a proposed organization
3 standard or amendment shall take effect according to its terms if the Electric Reliability
4 Organization determines that an emergency exists requiring that such proposed organization
5 standard or amendment take effect without notice or comment. The Electric Reliability
6 Organization shall notify the Commission immediately following such determination and
7 shall file such emergency organization standard or amendment with the Commission not later
8 than 5 days following such determination and shall include in such filing an explanation of
9 the need for such emergency standard. Subsequently, the Commission shall provide notice
10 of the organization standard or amendment for comment, and shall follow the procedures set
11 out in paragraphs (2) and (3) for review of the new or modified organization standard. Any
12 such organization standard that has gone into effect shall remain in effect unless and until
13 suspended or disapproved by the Commission. If the Commission determines at any time that
14 the emergency organization standard or amendment is not necessary, the Commission may
15 suspend such emergency organization standard or amendment.

16 “(4) All users of the bulk power system shall comply with any organization standard
17 that takes effect under this section.

18 “(f) COORDINATION WITH CANADA AND MEXICO.– The Electric Reliability
19 Organization shall take all appropriate steps to gain recognition in Canada and Mexico. The United
20 States shall use its best efforts to enter into international agreements with the appropriate
21 governments of Canada and Mexico to provide for effective compliance with organization standards
22 and to provide for the effectiveness of the Electric Reliability Organization in carrying out its

mission and responsibilities. All actions taken by the Electric Reliability Organization, any affiliated regional entity, and the Commission shall be consistent with the provisions of such international agreements.

“(g) CHANGES IN PROCEDURES, GOVERNANCE, OR FUNDING.–

“(1) The Electric Reliability Organization shall file with the Commission any proposed change in its procedures, governance, or funding, or any changes in the affiliated regional reliability entity's procedures, governance, or funding relating to delegated functions, and shall include with the filing an explanation of the basis and purpose for the change.

“(2) A proposed procedural change may take effect 90 days after filing with the Commission if the change constitutes a statement of policy, practice, or interpretation with respect to the meaning or enforcement of an existing procedure. Otherwise, a proposed procedural change shall take effect only upon a finding by the Commission, after notice and opportunity for comments, that the change is just, reasonable, not unduly discriminatory or preferential, is in the public interest, and satisfies the requirements of subsection (d)(4).

“(3) A change in governance or funding shall not take effect unless the Commission finds that the change is just, reasonable, not unduly discriminatory or preferential, in the public interest, and satisfies the requirements of subsection (d)(4).

“(4) The Commission, upon complaint or upon its own motion, may require the Electric Reliability Organization to amend the procedures, governance, or funding if the Commission determines that the amendment is necessary to meet the requirements of this section. The Electric Reliability Organization shall file the amendment in accordance with paragraph (1) of this subsection.

1 “(h) DELEGATIONS OF AUTHORITY-

2 “(1) The Electric Reliability Organization shall, upon request by an entity, enter into an
3 agreement with such entity for the delegation of authority to implement and enforce compliance with
4 organization standards in a specified geographic area if the organization finds that the entity
5 requesting the delegation satisfies the requirements of subparagraphs (A), (B), (C), (D), (F), (J), and
6 (K) of subsection (d)(4), and if the delegation promotes the effective and efficient implementation
7 and administration of bulk power system reliability. The Electric Reliability Organization may enter
8 into an agreement to delegate to the entity any other authority, except that the Electric Reliability
9 Organization shall reserve the right to set and approve standards for bulk power system reliability.

10 “(2) The Electric Reliability Organization shall file with the Commission any agreement
11 entered into under this subsection and any information the Commission requires with respect to the
12 affiliated regional reliability entity to which authority is to be delegated. The Commission shall
13 approve the agreement, following public notice and an opportunity for comment, if it finds that the
14 agreement meets the requirements of paragraph (1), and is just, reasonable, not unduly discriminatory
15 or preferential, and is in the public interest. A proposed delegation agreement with an affiliated
16 regional reliability entity organized on an interconnection-wide basis shall be rebuttably presumed
17 by the Commission to promote the effective and efficient implementation and administration of bulk
18 power system reliability. No delegation by the Electric Reliability Organization shall be valid unless
19 approved by the Commission.

20 “(3)(A) A delegation agreement entered into under this subsection shall specify the
21 procedures for an affiliated regional reliability entity to propose entity rules or variances for review
22 by the Electric Reliability Organization. With respect to any such proposal that would apply on an

1 interconnection-wide basis, the Electric Reliability Organization shall presume such proposal valid
2 if made by an interconnection-wide affiliated regional reliability entity unless the Electric Reliability
3 Organization makes a written finding that the proposal--

4 “(i) was not developed in a fair and open process that provided an opportunity
5 for all interested parties to participate;

6 “(ii) has a significant adverse impact on reliability or commerce in other
7 interconnections;

8 “(iii) fails to provide a level of reliability of the bulk-power system within the
9 interconnection such that it would constitute a serious and substantial threat to public
10 health, safety, welfare, or national security; or

11 “(iv) creates a serious and substantial burden on competitive markets within
12 the interconnection that is not necessary for reliability.

13 “(B) With respect to any such proposal that would apply only to part of an
14 interconnection, the Electric Reliability Organization shall find such proposal valid if the
15 affiliated regional reliability entity or entities making the proposal demonstrate that it--

16 “(i) was developed in a fair and open process that provided an opportunity for
17 all interested parties to participate;

18 “(ii) would not have an adverse impact on commerce that is not necessary for
19 reliability;

20 “(iii) provides a level of bulk power system reliability adequate to protect
21 public health, safety, welfare, and national security, and would not have a significant
22 adverse impact on reliability; and

1 “(iv) in the case of a variance, is based on legitimate differences between
2 regions or between subregions within the affiliated regional reliability entity's
3 geographic area.

4 The Electric Reliability Organization shall approve or disapprove such proposal within 120
5 days, or the proposal shall be deemed approved. Following approval of any such proposal
6 under this paragraph, the Electric Reliability Organization shall seek Commission approval
7 pursuant to the procedures prescribed under subsection (e)(3). Affiliated regional reliability
8 entities may not make requests for approval directly to the Commission except pursuant to
9 subsection (e)(3)(D).

10 “(4) If an affiliated regional reliability entity requests, consistent with paragraph (1) of this
11 subsection, that the Electric Reliability Organization delegate authority to it, but is unable within 180
12 days to reach agreement with the Electric Reliability Organization with respect to such requested
13 delegation, such entity may seek relief from the Commission. If, following notice and opportunity
14 for comment, the Commission determines that a delegation to the entity would meet the requirements
15 of paragraph (1) above, and that the delegation would be just, reasonable, not unduly discriminatory
16 or preferential, and in the public interest, and that the Electric Reliability Organization has
17 unreasonably withheld such delegation, the Commission may, by order, direct the Electric Reliability
18 Organization to make such delegation.

19 “(5)(A) The Commission may, upon its own motion or upon complaint, and with notice to
20 the appropriate affiliated regional reliability entity or entities, direct the Electric Reliability
21 Organization to propose a modification to an agreement entered into under this subsection if the
22 Commission determines that--

1 “(i) the affiliated regional reliability entity no longer has the capacity to carry
2 out effectively or efficiently its implementation or enforcement responsibilities under
3 that agreement, has failed to meet its obligations under that agreement, or has
4 violated any provision of this section;

5 “(ii) the rules, practices, or procedures of the affiliated regional reliability
6 entity no longer provide for fair and impartial discharge of its implementation or
7 enforcement responsibilities under the agreement;

8 “(iii) the geographic boundary of a transmission entity approved by the
9 Commission is not wholly within the boundary of an affiliated regional reliability
10 entity and such difference is inconsistent with the effective and efficient
11 implementation and administration of bulk power system reliability; or

12 “(iv) the agreement is inconsistent with another delegation agreement as a
13 result of actions taken under paragraph (4) of this subsection.

14 “(B) Following an order of the Commission issued under subparagraph (A), the
15 Commission may suspend the affected agreement if the Electric Reliability Organization or
16 the affiliated regional reliability entity does not propose an appropriate and timely
17 modification. If the agreement is suspended, the Electric Reliability Organization shall
18 assume the previously delegated responsibilities. The Commission shall allow the Electric
19 Reliability Organization and the affiliated regional reliability entity an opportunity to appeal
20 the suspension.

21 “(i) ORGANIZATION MEMBERSHIP.— Every system operator shall be required to be a
22 member of the Electric Reliability Organization and shall be required also to be a member of any

1 affiliated regional reliability entity operating under an agreement effective pursuant to subsection (h)
2 applicable to the region in which the system operates or is responsible for the operation of bulk
3 power system facilities.

4 “(j) INJUNCTIONS AND DISCIPLINARY ACTIONS.–

5 “(1) Consistent with the range of actions approved by the Commission under subsection
6 (d)(4)(H), the Electric Reliability Organization may impose a penalty, limitation of activities,
7 functions, operations, or other disciplinary action the Electric Reliability Organization finds
8 appropriate against a user of the bulk power system if the Electric Reliability Organization, after
9 notice and an opportunity for interested parties to be heard, issues a finding in writing that the user
10 of the bulk-power system has violated an organization standard. The Electric Reliability
11 Organization shall immediately notify the Commission of any disciplinary action imposed with
12 respect to an act or failure to act of a user of the bulk-power system that affected or threatened to
13 affect bulk power system facilities located in the United States, and the sanctioned party shall have
14 the right to seek modification or rescission of such disciplinary action by the Commission. If the
15 organization finds it necessary to prevent a serious threat to reliability, the organization may seek
16 injunctive relief in a Federal court in the district in which the affected facilities are located.

17 “(2) A disciplinary action taken under paragraph (1) may take effect not earlier than the 30th
18 day after the Electric Reliability Organization files with the Commission its written finding and
19 record of proceedings before the Electric Reliability Organization and the Commission posts its
20 written finding, unless the Commission, on its own motion or upon application by the user of the
21 bulk power system which is the subject of the action, suspends the action. The action shall remain
22 in effect or remain suspended unless and until the Commission, after notice and opportunity for

1 hearing, affirms, sets aside, modifies, or reinstates the action, but the Commission shall conduct such
2 hearing under procedures established to ensure expedited consideration of the action taken.

3 “(3) The Commission, on its own motion or on complaint, may order compliance with an
4 organization standard and may impose a penalty, limitation of activities, functions, or operations,
5 or take such other disciplinary action as the Commission finds appropriate, against a user of the bulk
6 power system with respect to actions affecting or threatening to affect bulk power system facilities
7 located in the United States if the Commission finds, after notice and opportunity for a hearing, that
8 the user of the bulk power system has violated or threatens to violate an organization standard.

9 “(4) The Commission may take such action as is necessary against the Electric Reliability
10 Organization or an affiliated regional reliability entity to assure compliance with an organization
11 standard, or any Commission order affecting the Electric Reliability Organization or an affiliated
12 regional reliability entity.

13 “(k) RELIABILITY REPORTS.— The Electric Reliability Organization shall conduct periodic
14 assessments of the reliability and adequacy of the interconnected bulk power system in North
15 America and shall report annually to the Secretary of Energy and the Commission its findings and
16 recommendations for monitoring or improving system reliability and adequacy.

17 “(l) ASSESSMENT AND RECOVERY OF CERTAIN COSTS.— The reasonable costs of
18 the Electric Reliability Organization, and the reasonable costs of each affiliated regional reliability
19 entity that are related to implementation and enforcement of organization standards or other
20 requirements contained in a delegation agreement approved under subsection (h), shall be assessed
21 by the Electric Reliability Organization and each affiliated regional reliability entity, respectively,
22 taking into account the relationship of costs to each region and based on an allocation that reflects

1 an equitable sharing of the costs among all end users. The Commission shall provide by rule for the
2 review of such costs and allocations, pursuant to the standards in this subsection and subsection
3 (d)(4)(F).

4 “(m) SAVINGS PROVISIONS.–

5 “(1) The Electric Reliability Organization shall have authority to develop, implement and
6 enforce compliance with standards for the reliable operation of only the bulk power system.

7 “(2) This section does not provide the Electric Reliability Organization or the Commission
8 with the authority to set and enforce compliance with standards for adequacy or safety of electric
9 facilities or services.

10 “(3) Nothing in this section shall be construed to preempt any authority of any State to take
11 action to ensure the safety, adequacy, and reliability of electric service within that State, as long as
12 such action is not inconsistent with any Organization Standard.

13 “(4) Within 90 days of the application of the Electric Reliability Organization or other
14 affected party, the Commission shall issue a final order determining whether a State action is
15 inconsistent with an Organization Standard, after notice and opportunity for comment, taking into
16 consideration any recommendations of the Electric Reliability Organization.

17 “(5) The Commission, after consultation with the Electric Reliability Organization, may stay
18 the effectiveness of any State action, pending the Commission's issuance of a final order.

19 “(n) REGIONAL ADVISORY BODIES.– The Commission shall establish a regional
20 advisory body on the petition of at least two-thirds of the States within a region that have more than
21 one-half of their electric load served within the region. A regional advisory body shall be composed
22 of one member from each participating State in the region, appointed by the Governor of each State,

1 and may include representatives of agencies, States, and provinces outside the United States, upon
2 execution of an international agreement or agreements described in subsection (f). A regional
3 advisory body may provide advice to the electric reliability organization, an affiliated regional
4 reliability entity, or the Commission regarding the governance of an existing or proposed affiliated
5 regional reliability entity within the same region, whether an organization standard, entity rule, or
6 variance proposed to apply within the region is just, reasonable, not unduly discriminatory or
7 preferential, and in the public interest, and whether fees proposed to be assessed within the region
8 are just, reasonable, not unduly discriminatory or preferential, in the public interest, and consistent
9 with the requirements of subsection (1). The Commission may give deference to the advice of any
10 such regional advisory body if that body is organized on an interconnection-wide basis.

11 “(o) COORDINATION WITH REGIONAL TRANSMISSION ORGANIZATIONS.–

12 “(1) Each regional transmission organization authorized by the Commission shall be
13 responsible for maintaining the short-term reliability of the bulk power system that it operates,
14 consistent with organization standards.

15 “(2) Except as provided in paragraph (5), in connection with a proceeding under subsection
16 (e) to consider a proposed organization standard, each regional transmission organization authorized
17 by the Commission shall report to the Commission, and notify the electric reliability organization
18 and any applicable affiliated regional reliability entity, regarding whether the proposed organization
19 standard hinders or conflicts with that regional transmission organization's ability to fulfill the
20 requirements of any rule, regulation, order, tariff, rate schedule, or agreement accepted, approved
21 or ordered by the Commission. Where such hindrance or conflict is identified, the Commission shall
22 address such hindrance or conflict, and the need for any changes to such rule, order, tariff, rate

1 schedule, or agreement accepted, approved or ordered by the Commission in its order under
2 subsection (e) regarding the proposed standard. Where such hindrance or conflict is identified
3 between a proposed organization standard and a provision of any rule, order, tariff, rate schedule or
4 agreement accepted, approved or ordered by the Commission applicable to a regional transmission
5 organization, nothing in this section shall require a change in the regional transmission organization's
6 obligation to comply with such provision unless the Commission orders such a change and the
7 change becomes effective. If the Commission finds that the tariff, rate schedule, or agreement needs
8 to be changed, the regional transmission organization must expeditiously make a section 205 filing
9 to reflect the change. If the Commission finds that the proposed organization standard needs to be
10 changed, it shall remand the proposed organization standard to the electric reliability organization
11 under subsection (e)(3)(B).

12 “(3) Except as provided in paragraph (5), to the extent hindrances and conflicts arise after
13 approval of a reliability standard under subsection (c) or organization standard under subsection (e),
14 each regional transmission organization authorized by the Commission shall report to the
15 Commission, and notify the electric reliability organization and any applicable affiliated regional
16 reliability entity, regarding any reliability standard approved under subsection (c) or organization
17 standard that hinders or conflicts with that regional transmission organization's ability to fulfill the
18 requirements of any rule, regulation, order, tariff, rate schedule, or agreement accepted, approved
19 or ordered by the Commission. The Commission shall seek to assure that such hindrances or
20 conflicts are resolved promptly. Where a hindrance or conflict is identified between a reliability
21 standard or an organization standard and a provision of any rule, order, tariff, rate schedule or
22 agreement accepted, approved or ordered by the Commission applicable to a regional reliability

1 organization, nothing in this section shall require a change in the regional transmission organization's
2 obligation to comply with such provision unless the Commission orders such a change and the
3 change becomes effective. If the Commission finds that the tariff, rate schedule or agreement needs
4 to be changed, the regional transmission organization must expeditiously make a section 205 filing
5 to reflect the change. If the Commission finds that an organization standard needs to be changed, it
6 shall order the electric reliability organization to develop and submit a modified organization
7 standard under subsection (e)(3)(C).

8 “(4) An affiliated regional reliability entity and a regional transmission organization operating
9 in the same geographic area shall cooperate to avoid conflicts between implementation and
10 enforcement of organization standards by the affiliated regional reliability entity and implementation
11 and enforcement by the regional transmission organization of tariffs, rate schedules, and agreements
12 accepted, approved or ordered by the Commission. In areas without an affiliated regional reliability
13 entity, the electric reliability organization shall act as the affiliated regional reliability entity for
14 purposes of this paragraph.

15 “(5) Until 6 months after approval of applicable subsection (h)(3) procedures, any reliability
16 standard, guidance, or practice contained in Commission-accepted tariffs, rate schedules, or
17 agreements in effect of any Commission-authorized independent system operator or regional
18 transmission organization shall continue to apply unless the Commission accepts an amendment
19 thereto by the applicable operator or organization, or upon complaint finds them to be unjust,
20 unreasonable, unduly discriminatory or preferential, or not in the public interest. At the conclusion
21 of such transition period, any such reliability standard, guidance, practice, or amendment thereto that
22 the Commission determines is inconsistent with organization standards shall no longer apply.”.

(b) ENFORCEMENT.— Sections 316 and 316A of the Federal Power Act are each amended by striking “or 214” each place it appears and inserting “214, or 216”.

SEC. 402. APPLICATION OF ANTITRUST LAWS.

Notwithstanding any other provision of law, each of the following activities are rebuttably presumed to be in compliance with the antitrust laws of the United States:

(1) Activities undertaken by the Electric Reliability Organization under section 216 of the Federal Power Act or affiliated regional reliability entity operating under an agreement in effect under section 216(h) of such Act.

(2) Activities of a member of the Electric Reliability Organization or affiliated regional reliability entity in pursuit of organization objectives under section 216 of the Federal Power Act undertaken in good faith under the rules of the organization.

Primary jurisdiction, and immunities and other affirmative defenses, shall be available to the extent otherwise applicable.

TITLE V—IMPROVED ELECTRICITY CAPACITY AND ACCESS

SEC. 501. UNIVERSAL AND AFFORDABLE SERVICE.

It is the sense of the Congress that—

(1) every retail electric consumer should have access to electric energy at reasonable and affordable rates; and

(2) the States should ensure that retail electric competition does not result in the loss of service to rural, residential, or low-income consumers.

SEC. 502. PUBLIC BENEFITS FUND.

(a) DEFINITIONS.— For purposes of this section—

(1) the term “eligible public purpose program” means a State or tribal program that–

(A) assists low-income households in meeting their home energy needs;

(B) provides for the planning, construction, or improvement of facilities to generate, transmit, or distribute electricity to Indian tribes or rural and remote communities;

(C) provides for the development and implementation of measures to reduce the demand for electricity;

(D) provides for the development and implementation of a qualifying greenhouse gas mitigation project; or

(E) provides for–

(i) new or additional capacity, or improves the efficiency of existing capacity, from a wind, biomass, geothermal, solar thermal, photovoltaic, combined heat and power energy source, or

(ii) additional generating capacity achieved from increased efficiency at existing hydroelectric dams or additions of new capacity at existing hydroelectric dams;

(2) the term “fiscal agent” means the entity designated under subsection (c);

(3) the term “Fund” means the Public Benefits Fund established under subsection (b);

(4) the term “qualifying greenhouse gas mitigation project” means a project to reduce the emissions of greenhouse gases that is at least fifty percent cofunded by a power generator;

(5) the term “Indian tribe” means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is

1 recognized as eligible for the special programs and services provided by the United States to Indians
2 because of their status as Indians;

3 (6) the term “Secretary” means the Secretary of Energy; and

4 (7) the term “State” means each of the States and the District of Columbia.

5 (b) PUBLIC BENEFITS FUND.— There is established in the Treasury of the United States
6 a separate fund, to be known as the Public Benefits Fund. The Fund shall consist of amounts
7 collected by the fiscal agent under subsection (e). The fiscal agent may disburse amounts in the
8 Fund, without further appropriation, in accordance with this section.

9 (c) DUTIES OF THE FISCAL AGENT.— The Secretary shall appoint a fiscal agent shall
10 collect and disburse the amounts in the Fund in accordance with this section.

11 (d) DUTIES OF THE SECRETARY.— The Secretary shall prescribe—

12 (1) rules for the equitable allocation of the Fund among States and Indian tribes based upon—

13 (A) the number of low-income households in such State or tribal jurisdiction; and

14 (B) the average annual cost of electricity used by households in such State or tribal
15 jurisdiction;

16 (2) the criteria by which the fiscal agent determines whether a State or tribal government’s
17 program is an eligible public purpose program; and

18 (3) rules governing the award of funds for qualifying greenhouse gas mitigation projects that
19 the Secretary determines are necessary to ensure such projects are cost-effective.

20 (e) PUBLIC BENEFITS CHARGE.—

21 (1) AMOUNT OF CHARGE.— As a condition of existing or future interconnection
22 with facilities of any transmitting utility, each owner of an electric generating facility whose

1 nameplate capacity exceeds five megawatts shall pay the transmitting utility a public benefits
2 charge equal to one mill per kilowatt-hour on electric energy generated by such electric
3 generating facility.

4 (2) AFFILIATES.— Each owner of an electric generating facility subject to the charge
5 under paragraph (1) shall pay the charge even if the generation facility and the transmitting
6 facility are under common ownership or are otherwise affiliated.

7 (3) IMPORTED ELECTRICITY.— Each importer of electric energy from Canada or
8 Mexico, as a condition of existing or future interconnection with facilities of any transmitting
9 utility in the United States, shall pay this same charge for imported electric energy.

10 (4) PAYMENT OF THE CHARGE.— The transmitting utility shall pay the amounts
11 collected to the fiscal agent at the close of each month, and the fiscal agent shall deposit the
12 amounts into the Fund as offsetting collections.

13 (f) DISBURSAL FROM THE FUND.—

14 (1) BLOCK GRANTS.— The fiscal agent shall disburse amounts in the Fund to
15 participating States and tribal governments as a block grant to carry out eligible public
16 purpose programs in accordance with this subsection and rules prescribed under subsection
17 (d).

18 (2) ANNUAL PAYMENTS.— The fiscal agent shall disburse amounts for a calendar
19 year from the Fund to a State or tribal government in twelve equal monthly payments
20 beginning two months after the beginning of the calendar year.

21 (3) ELIGIBLE RECIPIENTS.— The fiscal agent shall make distributions to the State
22 or tribal government or to an entity designated by the State or tribal government to receive

1 payments.

2 (4) LIMITATION ON USE OF FUNDS.— A State or tribal government may use
3 amounts received only for the eligible public purpose programs the State or tribal
4 government designated in its submission to the fiscal agent and the fiscal agent determined
5 eligible.

6 (g) REPORT.— One year before the date of expiration of this section, the Secretary shall
7 report to Congress whether a public benefits fund should continue to exist.

8 (h) SUNSET.— This section expires at midnight on December 31, 2015.

9 **SEC. 503. RURAL CONSTRUCTION GRANTS.**

10 Section 313 of the Rural Electrification Act of 1936 (7 U.S.C. 940c) is amended by adding
11 after subsection (b) the following:

12 “(c) RURAL AND REMOTE COMMUNITIES ELECTRIFICATION GRANTS.— The
13 Secretary of Agriculture, in consultation with the Secretary of Energy and the Secretary of the
14 Interior, may provide grants to eligible borrowers under this Act for the purpose of increasing energy
15 efficiency, siting or upgrading transmission and distribution lines, or providing or modernizing
16 electric facilities for—

17 “(1) a unit of local government of a State or territory; or

18 “(2) an Indian tribe.

19 “(d) GRANT CRITERIA.— The Secretary shall make grants based on a determination of cost-
20 effectiveness and most effective use of the funds to achieve the stated purposes of this section.

21 “(e) PREFERENCE.— In making grants under this section, the Secretary shall give a
22 preference to renewable energy facilities.

“(f) DEFINITION.— For purposes of this section, the term ‘Indian tribe’ means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians;

“(e) AUTHORIZATION.— There is authorized to be appropriated for purposes of subsection (c) \$20,000,000 for each of the seven fiscal years following the date of enactment of this section.”.

SEC. 504. COMPREHENSIVE INDIAN ENERGY PROGRAM.

(a) ESTABLISHMENT OF PROGRAM.— Title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501-3506) is amended by adding after section 2606 the following:

“SEC. 2607. COMPREHENSIVE INDIAN ENERGY PROGRAM.

“(a) DEFINITIONS.—For purposes of this section--

“(1) ‘Director’ means the Director of the Office of Indian Energy Policy and Programs established by section 217 of the Department of Energy Organization Act, and

“(2) ‘Indian land’ means—

“(A) any land within the limits of an Indian reservation, pueblo, or ranchera;

“(B) any land not within the limits of an Indian reservation, pueblo, or ranchera whose title on the date of enactment of this section was held—

“(i) in trust by the United States for the benefit of an Indian tribe,

“(ii) by an Indian tribe subject to restriction by the United States against alienation, or

“(iii) by a dependent Indian community; and

1 “(C) land conveyed to an Alaska Native Corporation under the Alaska Native
2 Claims Settlement Act.

3 “(b) INDIAN ENERGY EDUCATION, PLANNING AND MANAGEMENT
4 ASSISTANCE.– (1) The Director shall establish programs within the Office of Indian Energy Policy
5 and Programs to assist Indian tribes to meet their energy education, research and development,
6 planning, and management needs.

7 “(2) The Director may make grants, on a competitive basis, to an Indian tribe for--

8 “(A) renewable, energy efficiency, and conservation programs;

9 “(B) studies and other activities supporting tribal acquisition of energy supplies,
10 services, and facilities; and

11 “(C) planning, constructing, developing, operating, maintaining, and improving tribal
12 electrical generation, transmission, and distribution facilities.

13 “(3) The Director may develop, in consultation with Indian tribes, a formula for making
14 grants under this section. The formula may take into account the following--

15 “(A) total number of acres of Indian land owned by an Indian tribe;

16 “(B) total number of households on the tribe’s Indian land;

17 “(C) total number of households on the Indian tribe’s Indian land that have no
18 electricity service or are underserved; and

19 “(D) financial or other assets available to the tribe from any source.

20 “(4) In making a grant under paragraph (2)(E), the Director shall give priority to an
21 application received from an Indian tribe that is not served or is served inadequately by an electric
22 utility, as that term is defined in section 3(4) of the Public Utility Regulatory Policies Act of 1978

(16 U.S.C. 2602(4)), or by a person, State agency, or any other non-federal entity that owns or operates a local distribution facility used for the sale of electric energy to an electric consumer.

“(5) There are authorized to be appropriated to the Department of Energy such sums as may be necessary to carry out the purposes of this section.

“(c) APPLICATION OF BUY INDIAN ACT.— (1) An agency or department of the United States Government may give, in the purchase and sale of electricity, oil, gas, coal, or other energy product or by-product produced, converted, or transferred on Indian lands, preference, under section 23 of the Act of June 25, 1910 (25 U.S.C. 47) (commonly known as the “Buy Indian Act”), to an energy and resource production enterprise, partnership, corporation, or other type of business organization majority or wholly owned and controlled by an Indian, a tribal government, or a business, enterprise, or operation of the American Indian Tribal Governments.

“(2) In implementing this subsection, an agency or department shall pay no more for energy production than the prevailing market price and shall obtain no less than existing market terms and conditions.

“(d) EFFECT ON OTHER LAWS.— This section does not--

“(1) limit the discretion vested in an Administrator of a Federal power marketing agency to market and allocate Federal power, or

“(2) alter Federal laws under which a Federal power marketing agency markets, allocates, or purchases power.”.

(b) OFFICE OF INDIAN POLICY AND PROGRAMS.— Title II of the Department of Energy Organization Act is amended by adding at the end the following:

“OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS.

1 “SEC. 217. (a) There is established within the Department an Office of Indian Energy Policy
2 and Programs. This Office shall be headed by a Director, who shall be appointed by the Secretary
3 and compensated at the rate equal to that of level IV of the Executive Schedule under section 5315
4 of Title 5, United States Code. The Director shall perform the duties assigned the Director under
5 the Comprehensive Indian Energy Act and this section.

6 “(b) The Director shall provide, direct, foster, coordinate, and implement energy planning,
7 education, management, conservation, and delivery programs of the Department that--

8 “(1) promote tribal energy efficiency and utilization;

9 “(2) modernize and develop, for the benefit of Indian tribes, tribal energy and
10 economic infrastructure related to natural resource development and electrification;

11 “(3) preserve and promote tribal sovereignty and self determination related to energy
12 matters and energy deregulation;

13 “(4) lower or stabilize energy costs; and

14 “(5) electrify tribal members’ homes and tribal lands.

15 “(c) The Director shall carry out the duties assigned the Secretary under title XXVI of the
16 Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.).”.

17 (c) CONFORMING AMENDMENTS.—

18 (1) Section 2603(c) of the Energy Policy Act of 1992 (25 U.S.C. 3503(c)) is amended to read
19 as follows:

20 “(c) There are authorized to be appropriated such sums as may be necessary to carry out the
21 purposes of this section.”

22 (2) The Table of Contents of the Department of Energy Act is amended by inserting after the

item relating to section 216 the following new item:

“217. Office of Indian Energy Policy and Programs.”.

(3) Section 5315 of title 5, United States Code, is amended by inserting “Director, Office of Indian Energy Policy and Programs, Department of Energy.” after “Director, Office of Science, Department of Energy.”.

SEC. 505. ENVIRONMENTAL DISCLOSURE TO CONSUMERS.

(a) RETAIL SALES.— The Federal Trade Commission shall issue rules requiring each retail electric supplier to include with each monthly billing to retail electric consumers a statement of the known energy sources used to generate the electricity the supplier distributes, on an annual basis, stated in numbers of kilowatt-hours, both in percentages and in the form of a pie chart, of biomass power, coal-fired power, hydropower, natural gas-fired power, nuclear power, oil-fired power, wind power, geothermal power, solar thermal power, photovoltaic power, combined heat and power, and other sources of power, respectively.

(b) WHOLESALE SALES.— The Federal Trade Commission shall issue rules requiring any electric supplier that sells or makes an offer to sell electric energy at wholesale to provide the purchaser or offeree such known information about the energy source used to generate the electricity, on an annual basis, as the Commission may determine.

(c) CERTIFICATION PROGRAM.— The Secretary of Energy, in consultation with the Federal Trade Commission, shall develop a certification program for each retail electric supplier that sells electric energy, at least 50 percent of which, averaged over a year, is generated from renewable energy sources. For purposes of this subsection, the term “renewable energy source” means biomass, wind power, geothermal power, solar thermal power, or photovoltaic power.

SEC. 506. CONSUMER PROTECTIONS.

(a) INFORMATION DISCLOSURE.— The Federal Trade Commission shall issues rules requiring any retail electric supplier that sells or makes an offer to sell electric energy, or solicits retail electric consumers to purchase electric energy, to provide the retail electric consumers, in addition to the information required under section 505, a statement containing the following information:

(1) The nature of the service being offered, including information about interruptibility of service.

(2) The price of electric energy, including a description of any variable charges.

(3) A description of all other charges that are associated with the service being offered, including access charges, exit charges, back-up service charges, stranded cost recovery charges, and customer service charges.

(4) Information concerning the product or price that the Federal Trade Commission determines is technologically and economically feasible to provide and is of assistance to retail electric consumers in making purchasing decisions.

(b) CONSUMER PRIVACY.—

(1) PROHIBITION.— The Federal Trade Commission shall issue rules prohibiting any person who obtains consumer information in connection with the sale or delivery of electric energy to a retail electric consumer from using, disclosing, or permitting access to such information unless the consumer to whom such information relates provides prior written approval.

(2) PERMITTED USE.— The rules issued under this subsection shall not prohibit any person from using, disclosing, or permitting access to consumer information referred to in paragraph (1) for

any of the following purposes:

(A) To facilitate a retail electric consumer's change in selection of a retail electric supplier under procedures approved by the State or State commission.

(B) To initiate, render, bill, or collect for the sale or delivery of electric energy to retail electric consumers or for related services.

(C) To protect the rights or property of the person obtaining such information.

(D) To protect retail electric consumers from fraud, abuse, and unlawful subscription in the sale or delivery of electric energy to such consumers.

(E) For law enforcement purposes.

(F) For purposes of compliance with any Federal, State, or local law or regulation authorizing disclosure of information to a Federal, State, or local agency.

(3) AGGREGATE CONSUMER INFORMATION.— The rules issued under this subsection shall permit any person to use, disclose, and permit access to aggregate consumer information and shall require local distribution companies to make such information available to retail electric suppliers upon request and payment of a reasonable fee.

(4) DEFINITIONS.— As used in this section:

(1) The term “aggregate consumer information” means collective data that relates to a group or category of retail electric consumers, from which individual consumer identities and characteristics have been removed.

(2) The term “consumer information” means information that relates to the quantity, technical configuration, type, destination, or amount of use of electric energy delivered to any retail electric consumer.

(3) the term “State commission” has the meaning given such term in section 3(15) of the Federal Power Act (16 U.S.C. 796(15)).

(c) UNFAIR TRADE PRACTICES.—

(1) SLAMMING.— The Federal Trade Commission shall issue rules prohibiting the change of selection of a retail electric supplier except with the informed consent of the retail electric consumer.

(2) CRAMMING.— The Federal Trade Commission shall issue rules prohibiting the sale of goods and services to a retail electric consumer unless expressly authorized by law or the retail electric consumer.

(d) FEDERAL TRADE COMMISSION ENFORCEMENT.— Violation of a rule issued under this section shall be treated as a violation of a rule under section 18 of the Federal Trade Commission Act (15 U.S.C. 57a). All functions and powers of the Federal Trade Commission under such Act are available to the Federal Trade Commission to enforce compliance with this section notwithstanding any jurisdictional limits in such Act.

(e) STATE AUTHORITY.— (1) This section does not preclude a State or State commission from prescribing and enforcing additional laws, rules, or procedures regarding the practices which are the subject of this section, so long as such laws, rules, or procedures are not inconsistent with the provisions of this section or with any rule prescribed by the Federal Trade Commission pursuant to it.

(2) The remedies provided by this section are in addition to any other remedies available by law.

(f) DEFINITIONS.— As used in this section—

(1) the term “retail electric consumer” means any person who purchases electric energy for ultimate consumption;

(2) the term “retail electric supplier” means any person who sells electric energy to a retail electric consumer for ultimate consumption; and

(3) the term “State commission” has the meaning given such term in section 3(15) of the Federal Power Act (16 U.S.C. 796(15)).

SEC. 507. WHOLESALE ELECTRICITY MARKET DATA.

Section 213 of the Federal Power Act (16 U.S.C. 824*l*) is amended by adding at the end the following:

“(c) WHOLESALE ELECTRICITY MARKET DATA.—

“(1) Not later than 180 days after the date of the enactment of this subsection, the Commission shall, by rule, establish an information system that gives persons who buy electric energy for resale, State regulatory authorities, and the public access to current information about—

“(A) the availability of electric energy generating capacity and known generating constraints, and

“(B) the availability of transmission capacity and known transmission constraints.

“(2) The rule shall require—

“(A) each electric utility and each Federal power marketing administration that owns, operates, or controls facilities used for the generation or transmission of electric energy sold or transmitted in interstate commerce to report, by unit, on a real-time basis—

“(i) the total number of megawatts (as a 60 second average) produced by each generating facility it owns, operates, or controls, and

“(ii) the total number of megawatts of capacity at each facility it owns, operates, or controls that is not being used to generate electric power; and

“(B) each transmitting utility to report, on a real-time basis—

“(i) the total number of megawatts transmitted on each transmission facility it owns, operates, or controls, and

“(ii) the total number of megawatts scheduled and the current capacity or rating of each transmission facility it owns, operates, or controls.

“(3) The Commission may enter agreements with regional electric reliability councils to collect, retain, and make available to persons who buy electric energy for resale, state regulatory authorities, and the public the information required to be submitted by the rule.”.

SEC. 508. WHOLESALE ELECTRIC ENERGY RATES IN THE WESTERN ENERGY MARKET.

(a) IMPOSITION OF WHOLESALE ELECTRIC ENERGY RATES.— Not later than 60 days after the date of enactment of this title, the Federal Energy Regulatory Commission shall impose just and reasonable load-differentiated demand rates or cost-of-service based rates on sales by electric utilities of electric energy at wholesale in the western energy market.

(b) LIMITATIONS.—

(1) IN GENERAL.— A load-differentiated demand rate or cost-of-service based rate shall not apply to a sale of electric energy at wholesale for delivery in a State that—

(A) prohibits electric utilities from passing through to retail consumers wholesale rates approved by the Commission; or

(B) imposes a price limit on the sale of electric energy at retail that—

1 (i) precludes an electric utility from recovering all of the costs
2 incurred by the electric utility in purchasing electric energy; or

3 (ii) has precluded an electric utility (or any entity that is authorized to
4 purchase electricity on behalf of an electric utility or a State) from making a
5 payment when due to any entity within the western energy market from which
6 the electric utility purchased electric energy, and the default has not been
7 cured.

8 (2) NO ORDERS TO SELL WITHOUT GUARANTEE OF PAYMENT.—

9 Notwithstanding section 302 of the Natural Gas Policy Act of 1978 (15 U.S.C. 3362), section
10 202(c) of the Federal Power Act (16 U.S.C. 824a(c)), or section 101 of the Defense
11 Production Act of 1950 (50 U.S.C. App. 2071), neither the President, the Secretary of
12 Energy, nor the Commission may issue an order that requires a seller of electric energy or
13 natural gas to sell, on or after the date of enactment of this title, electric energy or natural gas
14 to a purchaser in a State described in paragraph (1) unless there is a guarantee that, in the
15 determination of the Commission, is sufficient to ensure that the seller will be paid—

16 (A) the full purchase price when due, as agreed upon by the buyer and seller;

17 or

18 (B) if the buyer and seller are unable to agree upon a price—

19 (i) a fair and equitable price for natural gas as determined by the
20 President under section 302 of the Natural Gas Policy Act of 1978 (15 U.S.C.
21 3362), or

22 (ii) a just and reasonable price for electric energy as determined by the

Secretary of Energy or the Commission, as appropriate, under section 202(c) of the Federal Power Act (16 U.S.C. 824a(c)).

(3) REQUIREMENT TO MEET IN-STATE DEMAND.— Notwithstanding any other provision of law, a State electric utility commission in the western energy market may prohibit an electric utility in the State from making any sale of electric energy to a purchaser in a State described in paragraph (1) at any time at which a State electric utility commission determines that the electric utility is not meeting the demand for electric energy in the service area of the electric utility.

(c) REPORT.— Not later than 120 days after the date of enactment of this title, the Secretary of Energy shall—

(1) conduct an investigation to determine whether any electric utility in a State described in subsection (d)(1) has been rendered uncreditworthy or has defaulted on any payment for electric energy as a result of a transfer of funds by the electric utility to a parent company or to an affiliate of the electric utility (except a payment made in accordance with a State deregulation statute); and

(2) submit to the Committee on Energy and Commerce of the House of Representative and the Committee on Energy and Natural Resources of the Senate a report describing the results of the investigation.

(d) DURATION.— A load-differentiated demand rate or cost-of-service based rate imposed under this section shall remain in effect until such time as the market for electric energy in the western energy market reflects just and reasonable rates, as determined by the Commission.

(e) AUTHORITY OF STATE REGULATORY AUTHORITIES.— This section does not

1 diminish or have any other effect on the authority of a State regulatory authority (as defined in
2 section 3 of the Federal Power Act (16 U.S.C. 796)) to regulate rates and charges for the sale of
3 electric energy to consumers, including the authority to determine the manner in which wholesale
4 rates shall be passed on to consumers (including the setting of tiered pricing, real-time pricing, and
5 baseline rates).

6 (f) DEFINITIONS.— For purposes of this section—

7 (1) COMMISSION.— The term “Commission” means the Federal Energy Regulatory
8 Commission.

9 (2) COST-OF-SERVICE BASED RATE.— The term “cost-of-service based rate”
10 means a rate, charge, or classification for the sale of electric energy that is equal to—

11 (A) all the variable and fixed costs for producing the electric energy; and

12 (B) a reasonable return on invested capital.

13 (3) ELECTRIC UTILITY.— The term “electric utility” means any person, State
14 agency (including any municipality), Federal agency (including the Tennessee Valley
15 Authority or any Federal power marketing agency) that sells electric energy in interstate
16 commerce.

17 (4) LOAD-DIFFERENTIATED DEMAND RATE.— The term “load-differentiated
18 demand rate” means a rate, charge, or classification for the sale of electric energy that reflects
19 differences in the demand for electric energy during various times of day, months, seasons,
20 or other time periods.

21 (5) WESTERN ENERGY MARKET.— The term “western energy market” means the
22 area covered by the Western Systems Coordinating Council of the North American Electric

1 Reliability Council.

2 (g) REPEAL.— Effective March 1, 2003, this section is repealed, and any load-differentiated
3 demand rate or cost-of-service based rate imposed under this section that is then in effect shall no
4 longer be effective.

5 **SEC. 509. NATURAL GAS RATE CEILING IN CALIFORNIA.**

6 Section 284.8(i) of title 18, Code of Federal Regulations (relating to the waiver of the
7 maximum rate ceiling on capacity release transactions on interstate natural gas pipelines) shall not
8 apply to the transportation of natural gas into the State of California from outside the State, effective
9 on the date of enactment of this section.

10 **SEC. 510. SALE PRICE IN BUNDLED NATURAL GAS TRANSACTIONS.**

11 (a) DISCLOSURE.— Not later than 60 days after the date of enactment of this section, the
12 Federal Energy Regulatory Commission shall issue a rule under section 4 of the Natural Gas Act (15
13 U.S.C. 717c) requiring any person that sells natural gas subject to the jurisdiction of the Commission
14 in a bundled transaction to file with the Commission, not later than the date specified by the
15 Commission, a statement that discloses—

16 (1) the portion of the sale price that is attributable to the price paid by the seller for
17 the natural gas; and

18 (2) the portion of the sale price that is attributable to the price paid for the
19 transportation of the natural gas.

20 (b) DEFINITION OF BUNDLED TRANSACTION.— For purposes of this section, the term
21 “bundled transaction” means a transaction for the sale of natural gas in which the sale price includes
22 both the cost of the natural gas and the cost of transporting the natural gas.

TITLE VI– RENEWABLES AND DISTRIBUTED GENERATION

SEC. 601. ASSESSMENT OF RENEWABLE ENERGY RESOURCES.

(a) RESOURCE ASSESSMENT.— Not later than one year after the date of enactment of this title, and each year thereafter, the Secretary of Energy shall publish an assessment of all renewable energy resources available within the United States.

(b) CONTENTS OF REPORT.— The report published under subsection (a) shall contain—

(1) a detailed inventory describing the available amount and characteristics of solar, wind, biomass, geothermal, hydroelectric and other renewable energy sources, and

(2) such other information as the Secretary of Energy believes would be useful in developing such renewable energy resources, including descriptions of surrounding terrain, population and load centers, nearby energy infrastructure, location of energy and water resources, and available estimates of the costs needed to develop each resource.

SEC. 602. FEDERAL PURCHASE REQUIREMENT.

(a) REQUIREMENT.— The President shall ensure that, of the total amount of electric power the federal government purchases during any fiscal year—

(1) not less than 3 percent in fiscal years 2002 through 2004,

(2) not less than 5 percent in fiscal years 2005 through 2009, and

(3) not less than 7.5 percent in fiscal year 2010 and each fiscal year thereafter—

shall be electric power generated by a renewable energy source.

(b) DEFINITION.— For purposes of this section, the term “renewable energy source” means—

(1) wind;

(2) biomass;

(3) a geothermal source;

(4) a solar thermal source;

(5) a photovoltaic source;

(6) fuel cells; or

(7) additional hydroelectric generation capacity achieved from increased efficiency
or additions of new capacity at an existing hydroelectric dam.

SEC. 603. INTERCONNECTION STANDARDS.

Section 210 of the Federal Power Act (42 U.S.C. 824i) is amended by adding at the end the
following:

“(f) SPECIAL RULE FOR DISTRIBUTED GENERATION FACILITIES.—

“(1) DEFINITION.— As used in this subsection, the term ‘distributed generation facility’
means an electric power generation facility that—

“(A) is designed to serve retail customers at or near the point of consumption; and

“(B) interconnects with local distribution facilities.

“(2) INTERCONNECTION.— A local distribution company shall interconnect a distributed
generation facility with the local distribution facilities of such company if the distributed generation
facility owner or operator complies with the final rule adopted under paragraph (3) and pays the costs
directly related to such interconnection. Costs, terms, and conditions related to such interconnection
shall be just, reasonable, and not unduly discriminatory.

“(3) RULES.— Within one year after the date of enactment of this subsection, the
Commission shall adopt a final rule to establish safety, reliability, and power quality standards
related to distributed generation facilities. For purposes of developing such standards, the

Commission may classify distributed power generation facilities based on size and prescribe different requirements for different classes of facilities. The Commission shall establish an advisory committee composed of qualified experts to make recommendations to the Commission on the development of such standards.”.

SEC. 604. NET METERING.

Title VI of the Public Utility Regulatory Policies Act of 1978 is amended by adding at the end the following:

“SEC. 605. NET METERING FOR RENEWABLE ENERGY AND FUEL CELLS.

“(a) DEFINITIONS.— For purposes of this section:

“(1) The term ‘eligible on-site generating facility’ means—

“(A) a facility on the site of a residential electric consumer with a maximum generating capacity of 100 kilowatts or less that is fueled by solar or wind energy; or

“(B) a facility on the site of a commercial electric consumer with a maximum generating capacity of 250 kilowatts or less that is fueled solely by a renewable energy resource.

“(2) The term ‘renewable energy resource’ means solar energy, wind energy, biomass, geothermal energy, or fuel cells.

“(3) The term ‘net metering service’ means service to an electric consumer under which electricity generated by that consumer from an eligible on-site generating facility and delivered to the distribution system through the same meter through which purchased electricity is received may be used to offset electricity provided by the retail electric supplier to the electric consumer during the applicable billing period so that an electric consumer is billed only for the net electricity

consumed during the billing period.

“(b) REQUIREMENT TO PROVIDE NET METERING SERVICE.— Each retail electric supplier shall make available upon request net metering service to any retail electric consumer that the supplier currently serves or solicits for service.

“(c) RATES AND CHARGES.—

“(1) IDENTICAL CHARGES.— A retail electric supplier--

“(A) shall charge the owner or operator of an on-site generating facility rates and charges that are identical to those that would be charged other retail electric customers of the electric company in the same rate class; and

“(B) shall not charge the owner or operator of an on-site generating facility any additional standby, capacity, interconnection, or other rate or charge.

“(2) MEASUREMENT.— A retail electric supplier that supplies electricity to the owner or operator of an on-site generating facility shall measure the quantity of electricity produced by the on-site facility and the quantity of electricity consumed by the owner or operator of an on-site generating facility during a billing period in accordance with normal metering practices.

“(3) ELECTRICITY SUPPLIED EXCEEDING ELECTRICITY GENERATED.— If the quantity of electricity supplied by a retail electric supplier during a billing period exceeds the quantity of electricity generated by an on-site generating facility and fed back to the electric distribution system during the billing period, the supplier may bill the owner or operator for the net quantity of electricity supplied by the retail electric supplier, in accordance with normal metering practices.

“(4) ELECTRICITY GENERATED EXCEEDING ELECTRICITY SUPPLIED.— If the

1 quantity of electricity generated by an on-site generating facility during a billing period exceeds the
2 quantity of electricity supplied by the retail electric supplier during the billing period--

3 “(A) the retail electric supplier may bill the owner or operator of the on-site
4 generating facility for the appropriate charges for the billing period in accordance with
5 paragraph (2); and

6 “(B) the owner or operator of the on-site generating facility shall be credited for the
7 excess kilowatt-hours generated during the billing period, with the kilowatt-hour credit
8 appearing on the bill for the following billing period.

9 “(d) SAFETY AND PERFORMANCE STANDARDS.--

10 “(1) An eligible on-site generating facility and net metering system used by a retail electric
11 consumer shall meet all applicable safety, performance, reliability, and interconnection standards
12 established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and
13 Underwriters Laboratories.

14 “(2) The Commission, after consultation with State regulatory authorities and nonregulated
15 local distribution systems and after notice and opportunity for comment, may adopt, by rule,
16 additional control and testing requirements for on-site generating facilities and net metering systems
17 that the Commission determines are necessary to protect public safety and system reliability.

18 **SEC. 605. ACCESS TO TRANSMISSION BY INTERMITTENT GENERATORS.**

19 Part II of the Federal Power Act (16 U.S.C. 824-824m) is amended by adding at the end the
20 following:

21 **“SEC. 217. ACCESS TO TRANSMISSION BY INTERMITTENT GENERATORS.**

22 “(a) IN GENERAL.-- The Commission shall ensure that all transmitting utilities provide

1 transmission service to intermittent generators in a manner that does not penalize such generators,
2 directly or indirectly, for characteristics that are--

3 “(1) inherent to intermittent energy resources; and

4 “(2) are beyond the control of such generators.

5 “(b) POLICIES.— The Commission shall ensure that the requirement in subsection (a) is met
6 by adopting such policies as it deems appropriate which shall include, but not be limited to, the
7 following:

8 “(1) Subject to the sole exception set forth in paragraph (2), the Commission shall ensure that
9 the rates transmitting utilities charge intermittent generator customers for transmission services do
10 not directly or indirectly penalize intermittent generator customers for scheduling deviations.

11 “(2) The Commission may exempt a transmitting utility from the requirement set forth in
12 subsection (b) if the transmitting utility demonstrates that scheduling deviations by its intermittent
13 generator customers are likely to have a substantial adverse impact on the reliability of the
14 transmitting utility’s system. For purposes of administering this exemption, there shall be a
15 rebuttable presumption of no adverse impact where intermittent generators collectively constitute
16 20 percent or less of total generation interconnected with transmitting utility’s system and using
17 transmission services provided by transmitting utility.

18 “(3) The Commission shall ensure that to the extent any transmission charges recovering the
19 transmitting utility’s embedded costs are assessed to intermittent generators, they are assessed to
20 such generators on the basis of kilowatt-hours generated rather than the intermittent generator’s
21 capacity.

22 “(4) The Commission shall require transmitting utilities to offer at least to intermittent

generators, if not all transmission customers, access to nonfirm transmission service pursuant to long-term contracts of up to ten years duration under reasonable terms and conditions.

“(c) DEFINITIONS.— In this section:

“(1) INTERMITTENT GENERATOR.— The term ‘intermittent generator’ means a person that generates electricity using wind or solar energy.

“(2) NONFIRM TRANSMISSION SERVICE.— The term ‘nonfirm transmission service’ means transmission service provided on an ‘as available’ basis.

“(3) SCHEDULING DEVIATION.— The term ‘scheduling deviation’ means delivery of more or less energy than has previously been forecast in a schedule submitted by an intermittent generator to a control area operator or transmitting utility.”.

TITLE VII—HYDROELECTRIC RELICENSING

SEC. 701. ALTERNATIVE CONDITIONS.

(a) ALTERNATIVE MANDATORY CONDITIONS.— Section 4 of the Federal Power Act (16 U.S.C. 797) is amended by adding at the end the following:

“(h)(1) Whenever any person applies for a license for any project works within any reservation of the United States under subsection (e), and the Secretary of the department under whose supervision such reservation falls shall deem a condition to such license to be necessary under the first proviso of such section, the license applicant may propose an alternative condition.

“(2) Notwithstanding the first proviso of subsection (e), the Secretary of the department under whose supervision the reservation falls shall accept the alternative condition proposed by the license applicant, and the Commission shall include in the license such alternative condition, if the Secretary of the appropriate department determines that the alternative condition—

1 “(A) provides equal or greater protection for the reservation than the condition
2 deemed necessary by the Secretary;

3 “(B) is based on sound science; and

4 “(C) will either–

5 “(i) cost less to implement than the condition deemed necessary by the
6 Secretary, or

7 “(ii) result in less loss of generating capacity than the condition deemed
8 necessary by the Secretary.”.

9 (b) ALTERNATIVE FISHWAYS.– Section 18 of the Federal Power Act (16 U.S.C. 811)
10 is amended by–

11 (1) inserting “(a)” before the first sentence; and

12 (2) adding at the end the following:

13 “(b)(1) Whenever the Commission shall require a licensee to construct, maintain, or operate
14 a fishway prescribed by the Secretary of the Interior or the Secretary of Commerce under this section,
15 the licensee may propose an alternative.

16 “(2) Notwithstanding subsection (a), the Secretary of the Interior or the Secretary of
17 Commerce, as appropriate, shall accept and prescribe, and the Commission shall require, the
18 alternative proposed by the licensee, if the Secretary of the appropriate department determines that
19 the alternative–

20 “(i) will result in equal or greater fish passage than the fishway initially prescribed
21 by the Secretary;

22 “(ii) is based on sound science; and

“(iii) will either–

“(I) cost less to implement than the fishway initially prescribed by the

Secretary, or

“(II) result in less loss of generating capacity than the fishway initially

prescribed by the Secretary.”.

SEC. 702. DISPOSITION OF HYDROELECTRIC CHARGES.

(a) ANNUAL CHARGES.– Section 10(e)(1) of the Federal Power Act (16 U.S.C. 803(e)(1)) is amended–

(1) by striking “subject to annual appropriations Acts” in the first proviso; and

(2) by inserting after “(in addition to other funds appropriated for such purposes)” in the first proviso the following: “without further appropriation”.

(b) OTHER CHARGES.– Section 17(a) of the Federal Power Act (16 U.S.C. 810(a)) is amended by striking “into the Treasury of the United States and credited to ‘Miscellaneous receipts’” and inserting the following: “to the Secretary of the department under whose supervision the affected reservation falls, without further appropriation, to be used in accordance with subsection (c)”.

(c) USE OF FUNDS.– Section 17 of the Federal Power Act (16 U.S.C. 810) is further amended by adding at the end the following:

“(c)(1) The Secretary receiving a distribution of 12 ½ per centum of the proceeds of charges under subsection (a) may use such proceeds solely for the protection of the water resources on–

“(A) the reservation on which the project for which the proceeds were paid is located;

or

“(B) the reservation on which the headwaters of the waterway, on which the project

1 for which the proceeds were paid, is located.

2 “(2) For purposes of this subsection, activities for the protection of water resources for which
3 proceeds made available under this subsection may be used may only include the following:

4 “(A) promoting the recovery of threatened and endangered species;

5 “(B) road and trail assessments and plans, maintenance, obliteration, or closure;

6 “(C) wildlife and fish habitat management;

7 “(D) multiparty monitoring of water protection activities;

8 “(E) watershed analysis, including resource conditions and trend assessments;

9 “(F) erosion control and restoring hydrologic function to meadows, wetlands, and
10 floodplains; and

11 “(G) job training associated with paragraph (3).

12 “(3) In order to provide employment and job training opportunities to residents of rural
13 communities located within or near a reservation identified in paragraph (1), the Secretary may make
14 grants or enter into cooperative agreements or contracts with–

15 “(A) a private, non-profit, or cooperative entity within the same county as the
16 reservation;

17 “(B) businesses that employ 25 or less employees;

18 “(C) an entity that will hire or train residents of communities located within or near
19 the reservation to perform the contract; or

20 “(D) the Youth Conservation Corps or related partnerships with State, local, or non-
21 profit youth groups.”.

22 **SEC. 703. RELICENSING STUDY.**

1 (a) IN GENERAL.— The Federal Energy Regulatory Commission shall, in consultation with
2 the Secretary of Commerce, the Secretary of the Interior, and the Secretary of Agriculture, conduct
3 a study of all new licensees issued for existing projects under section 15 since January 1, 1994.

4 (b) SCOPE.— The study shall analyze:

5 (1) the length of time the Commission has taken to issue each new license for an
6 existing project;

7 (2) the additional cost to the licensee attributable to new license conditions;

8 (3) the change in generating capacity attributable to new license conditions;

9 (4) the environmental benefits achieved by new license conditions; and

10 (5) litigation arising from the issuance or failure to issue new licenses for existing
11 projects under section 15 or the imposition or failure to impose new license conditions.

12 (c) DEFINITION.— As used in this section, the term “new license condition” means any
13 condition imposed under—

14 (1) section 4(e) of the Federal Power Act (16 U.S.C. 797(e)),

15 (2) section 10(e) of the Federal Power Act (16 U.S.C. 803(e)),

16 (3) section 10(j) of the Federal Power Act (16 U.S.C. 803(j)),

17 (4) section 18 of the Federal Power Act (16 U.S.C. 811), or

18 (5) section 401(d) of the Clean Water Act (33 U.S.C. 1341(d)).

19 (d) CONSULTATION.— The Commission shall give interested persons and licensees an
20 opportunity to submit information and views in writing.

21 (e) REPORT.— The Commission shall report its findings to the Committee on Energy and
22 Natural Resources of the United States Senate and the Committee on Energy and Commerce of the

House of Representatives not later than six months after the date of enactment of this section.

TITLE VIII—COAL

SEC. 801. DEFINITIONS.

In this title:

(1) COST AND PERFORMANCE GOALS- The term “cost and performance goals” means the cost and performance goals established under section 811.

(2) SECRETARY- The term “Secretary” means the Secretary of Energy.

Subtitle A--National Coal-Based Technology Development and Applications Program

SEC. 811. COST AND PERFORMANCE GOALS.

(a) IN GENERAL.— The Secretary shall perform an assessment that identifies costs and associated performance of technologies that would permit the continued cost-competitive use of coal for electricity generation, as chemical feedstocks, and as transportation fuel in the periods:

(1) 2007 through 2014;

(2) 2015 through 2019; and

(3) 2020 and each year thereafter.

(b) CONSULTATION.— In establishing the cost and performance goals, the Secretary shall consult with representatives of--

(1) the United States coal industry;

(2) State coal development agencies;

(3) the electric utility industry;

(4) railroads and other transportation industries;

(5) manufacturers of equipment using advanced coal technologies;

(6) organizations representing workers; and

(7) organizations formed to--

(A) further the goals of environmental protection;

(B) promote the use of coal; or

(C) promote the development and use of advanced coal technologies.

(c) TIMING.-- The Secretary shall--

(1) not later than 120 days after the date of enactment of this title, issue a set of draft cost and performance goals for public comment; and

(2) not later than 180 days after the date of enactment of this title, after taking into consideration any public comments received, submit to Congress the final cost and performance goals.

SEC. 812. STUDY.

(a) IN GENERAL-- Not later than 1 year after the date of enactment of this title, the Secretary, in cooperation with the Secretary of the Interior and the Administrator of the Environmental Protection Agency, shall conduct a study to--

(1) identify technologies capable of achieving the cost and performance goals;

(2) assess the costs that would be incurred by, and the period of time that would be required for, the development and demonstration of the cost and performance goals; and

(3) develop recommendations for technology development programs, which the Department of Energy could carry out in cooperation with industry, to develop and demonstrate the cost and performance goals.

(b) COOPERATION.-- In carrying out this section, the Secretary shall give due weight to the

expert advice of representatives of the entities described in section 811(b).

SEC. 813. TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM.

(a) IN GENERAL.— The Secretary shall carry out a program of research on and development, demonstration, and commercial application of coal-based technologies under the statutory authorities available to him for carrying out research and development.

(b) CONDITIONS.— The research, development, demonstration, and commercial application programs identified in section 812(a) shall be designed to achieve the cost and performance goals.

(c) REPORT.— Not later than 18 months after the date of enactment of this title, the Secretary shall submit to the President and Congress a report containing--

(1) a description of the programs that, as of the date of the report, are in effect or are to be carried out by the Department of Energy to support technologies that are designed to achieve the cost and performance goals; and

(2) recommendations for additional authorities required to achieve the cost and performance goals.

SEC. 814. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.— There are authorized to be appropriated to carry out this subtitle \$100,000,000 for each of fiscal years 2002 through 2012, to remain available until expended.

(b) CONDITIONS OF AUTHORIZATION- The authorization of appropriations under subsection (a)--

(1) shall be in addition to authorizations of appropriations in effect on the date of enactment of this title; and

(2) shall not be a cap on Department of Energy fossil energy research and development and

1 clean coal technology appropriations.

2 *Subtitle B--Power Plant Improvement Initiative*

3 **SEC. 821. POWER PLANT IMPROVEMENT INITIATIVE PROGRAM.**

4 (a) IN GENERAL.— The Secretary shall carry out a power plant improvement initiative
5 program that will demonstrate commercial applications of advanced coal-based technologies
6 applicable to new or existing power plants, including co-production plants, which must advance the
7 efficiency, environmental performance, and cost competitiveness well beyond that which is in
8 operation or has been demonstrated on the date of enactment of this title.

9 (b) PLAN.— Not later than 120 days after the date of enactment of this title, the Secretary
10 shall submit to Congress a plan to carry out subsection (a) that includes a description of--

11 (1) the program elements and management structure to be used;

12 (2) the technical milestones to be achieved with respect to each of the advanced coal-based
13 technologies included in the plan; and

14 (3) the demonstration activities proposed to be conducted at new or existing coal-based
15 electric generation units having at least 50 megawatts nameplate rating, including improvements to
16 allow the units to achieve 1 or more of the following:

17 (A) An overall design efficiency improvement of not less than 3 percent as compared
18 with the efficiency of the unit as operated on the date of enactment of this title and before any
19 retrofit, repowering, replacement, or installation.

20 (B) A significant improvement in the environmental performance related to the
21 control of sulfur dioxide, nitrogen oxide, and mercury in a manner that is different and well
22 below the cost of technologies that are in operation or have been demonstrated on the date

of enactment of this title.

(C) A means of recycling, reusing, or sequestering a significant portion of coal combustion wastes produced by coal-based generating units excluding practices that are commercially available at the date of enactment of this title.

SEC. 822. FINANCIAL ASSISTANCE.

(a) IN GENERAL.— Not later than 180 days after the date on which the Secretary submits to Congress the plan under section 821(b), the Secretary shall solicit proposals for projects at new or existing facilities designed to achieve the levels of performance set forth in section 821(b)(3).

(b) PROJECT CRITERIA.— A solicitation under subsection (a) may include solicitation of a proposal for a project to demonstrate--

(1) the control of emissions of 1 or more pollutants; or

(2) the production of coal combustion byproducts that are capable of obtaining economic values significantly greater than byproducts produced on the date of enactment of this title.

(c) FINANCIAL ASSISTANCE.— The Secretary shall provide financial assistance to projects that--

(1) demonstrate overall cost reductions in the utilization of coal to generate useful forms of energy;

(2) improve the competitiveness of coal among various forms of energy in order to maintain a diversity of fuel choices in the United States to meet electricity generation requirements;

(3) achieve, in a cost-effective manner, 1 or more of the criteria described in the solicitation; and

(4) demonstrate technologies that are applicable to 25 percent of the electricity generating

facilities that use coal as the primary feedstock on the date of enactment of this title.

(d) FEDERAL SHARE- The Federal share cost of a project funded under this subtitle shall not exceed 50 percent.

SEC. 823. FUNDING.

To carry out this subtitle, the Secretary may use any unobligated funds available to the Secretary and any funds obligated to any project selected under the clean coal technology program that become unobligated.

TITLE IX—PRICE-ANDERSON ACT REAUTHORIZATION

SEC. 901. SHORT TITLE.

This title may be cited as the “Price-Anderson Amendments Act of 2001”.

SEC. 902. INDEMNIFICATION AUTHORITY.

(a) INDEMNIFICATION OF NRC LICENSEES.— Section 170 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is amended by striking “August 1, 2002” each place it appears and inserting “August 1, 2012”.

(b) INDEMNIFICATION OF DOE CONTRACTORS.— Section 170 d.(1)(A) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking “, until August 1, 2002,”.

(c) INDEMNIFICATION OF NONPROFIT EDUCATIONAL INSTITUTIONS.— Section 170 k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended by striking “August 1, 2002” each place it appears and inserting “August 1, 2012”.

SEC. 903. MAXIMUM ASSESSMENT.

Section 170 b.(1) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)(1)) is amended by striking “\$10,000,000” and inserting “\$20,000,000”.

SEC. 904. DOE LIABILITY LIMIT.

(a) AGGREGATE LIABILITY LIMIT.— Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking subsection (2) and inserting the following:

“(2) In agreements of indemnification entered into under paragraph (1), the Secretary--

“(A) may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity, and

“(B) shall indemnify the persons indemnified against such claims above the amount of the financial protection required, in the amount of \$10,000,000,000 (subject to adjustment for inflation under subsection t.), in the aggregate, for all persons indemnified in connection with such contract and for each nuclear incident, including such legal costs of the contractor as are approved by the Secretary.”.

(b) CONTRACT AMENDMENTS.— Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is further amended by striking subsection (3) and inserting the following:

“(3) All agreements of indemnification under which the Department of Energy (or its predecessor agencies) may be required to indemnify any person, shall be deemed to be amended, on the date of the enactment of the Price-Anderson Amendments Act of 1999, to reflect the amount of indemnity for public liability and any applicable financial protection required of the contractor under this subsection on such date.”.

SEC. 905. INCIDENTS OUTSIDE THE UNITED STATES.

(a) AMOUNT OF INDEMNIFICATION.— Section 170 d.(5) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(5)) is amended by striking “\$100,000,000” and inserting “\$500,000,000”.

(b) LIABILITY LIMIT.— Section 170e.(4) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is amended by striking “\$100,000,000” and inserting “\$500,000,000”.

SEC. 906. REPORTS.

Section 170 p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by striking “August 1, 1998” and inserting “August 1, 2008”.

SEC. 907. INFLATION ADJUSTMENT.

Section 170 t. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(t)) is amended--

(1) by renumbering paragraph (2) as paragraph (3); and

(2) by adding after paragraph (1) the following new paragraph:

“(2) The Secretary shall adjust the amount of indemnification provided under an agreement of indemnification under subsection d. not less than once during each 5-year period following the date of the enactment of the Price-Anderson Amendments Act of 2001, in accordance with the aggregate percentage change in the Consumer Price Index since--

“(A) such date of enactment, in the case of the first adjustment under this subsection;

or

“(B) the previous adjustment under this subsection.”.

SEC. 908. CIVIL PENALTIES.

(a) REPEAL OF AUTOMATIC REMISSION.— Section 234A b.(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(b)(2)) is amended by striking the last sentence.

(b) LIMITATION FOR NONPROFIT INSTITUTIONS.— Section 234A of the Atomic Energy Act of 1954 (42 U.S.C. 2282a) is further amended by striking subsection d. and inserting the following:

1 “d. Notwithstanding subsection a., no contractor, subcontractor, or supplier considered to be
2 nonprofit under the Internal Revenue Code of 1954 shall be subject to a civil penalty under this
3 section in excess of the amount of any performance fee paid by the Secretary to such contractor,
4 subcontractor, or supplier under the contract under which the violation or violations; occur.”.

5 **SEC. 909. EFFECTIVE DATE.**

6 (a) IN GENERAL.— The amendments made by this title shall become effective on the date
7 of the enactment of this title.

8 (b) INDEMNIFICATION PROVISIONS- The amendments made by sections 703, 704, and
9 705 shall not apply to any nuclear incident occurring before the date of the enactment of this title.

10 (c) CIVIL PENALTY PROVISIONS- The amendments made by section 708 to section 234A
11 of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(b)(2)) shall not apply to any violation occurring
12 under a contract entered into before the date of the enactment of this title.

13 **DIVISION C—DOMESTIC OIL AND GAS PRODUCTION AND**
14 **TRANSPORTATION**

15 **TITLE X—OIL AND GAS PRODUCTION**

16 **SEC. 1001. OUTER CONTINENTAL SHELF OIL AND GAS LEASE SALE 181.**

17 (a) REQUIREMENT.— Subject to applicable laws and regulations, not later than December
18 31, 2001, the Secretary of the Interior shall proceed with the proposed Eastern Gulf of Mexico Outer
19 Continental Shelf Oil and Gas Lease Sale 181.

20 (b) MODIFICATION.— In carrying out the sale under subsection (a), the Secretary of the
21 Interior shall modify the lease area by excluding the 120 blocks in a narrow strip beginning 15 miles
22 from the coast of Alabama. The Secretary shall include the 913 blocks in the area that is greater than

100 miles from the coast of Florida in Lease Sale 181.

SEC. 1002. FEDERAL ONSHORE LEASING PROGRAMS FOR OIL AND GAS.

Consistent with applicable law and regulations, there are authorized to be appropriated to the Secretary of the Interior and the Secretary of Agriculture such sums as may be necessary, including salary expenses to hire additional personnel, to ensure expeditious compliance with National Environmental Policy Act requirements applicable to oil and gas production on public lands and national forest system lands.

SEC. 1003. INCREASING PRODUCTION ON STATE AND PRIVATE LANDS.

(a) STUDY.— The Secretary of Energy, in close coordination with the Interstate Oil and Gas Compact Commission, shall conduct a study to evaluate the opportunities for increasing oil and natural gas production from State and privately controlled lands in the United States. The study shall take into account trends in land use and development that may affect oil and gas development, the various leasing practices and rules for development among the States, and differences in contract terms from State to State and among private landowners. The evaluation should also include an assessment of whether optimal recovery practices, including in-fill drilling, work-overs, and enhanced recovery operations, are being employed consistently to ensure the full development and conservation of the resources. The evaluation should determine what impediments may exist to ensuring optimal recovery practices and make recommendations as to how those impediments could be overcome. The study should also determine whether production rights or leases are controlled by parties no longer interested in fully recovering the resource, with inactivity for a period of time being considered as indicating a lack of interest.

(b) REPORT TO CONGRESS AND GOVERNORS.--Not later than 240 days after the date

1 of enactment of this section, the Secretary shall provide a report to the Committee on Energy and
2 Natural Resources in the Senate, and the Committee on Resources in the House of Representatives,
3 summarizing the findings of the study carried out under subsection (a) and providing
4 recommendations for policies or other actions that could help increase production on State and
5 private lands. The Secretary shall also provide a copy of the report to the Governors of the Member
6 States of the Interstate Oil and Compact Commission.

7 **TITLE XI—PIPELINE SAFETY RESEARCH AND DEVELOPMENT**

8 **SEC. 1101. PIPELINE INTEGRITY RESEARCH AND DEVELOPMENT.**

9 (a) IN GENERAL.— The Secretary of Transportation, in coordination with the Secretary of
10 Energy, shall develop and implement an accelerated cooperative program of research and
11 development to ensure the integrity of natural gas and hazardous liquid pipelines. This research and
12 development program shall include materials inspection techniques, risk assessment methodology,
13 and information systems surety.

14 (b) PURPOSE.— The purpose of the cooperative research program shall be to promote
15 research and development to--

16 (1) ensure long-term safety, reliability and service life for existing pipelines;

17 (2) expand capabilities of internal inspection devices to identify and accurately measure
18 defects and anomalies;

19 (3) develop inspection techniques for pipelines that cannot accommodate the internal
20 inspection devices available on the date of enactment;

21 (4) develop innovative techniques to measure the structural integrity of pipelines to prevent
22 pipeline failures;

- (5) develop improved materials and coatings for use in pipelines;
- (6) improve the capability, reliability, and practicality of external leak detection devices;
- (7) identify underground environments that might lead to shortened service life;
- (8) enhance safety in pipeline siting and land use;
- (9) minimize the environmental impact of pipelines;
- (10) demonstrate technologies that improve pipeline safety, reliability, and integrity;
- (11) provide risk assessment tools for optimizing risk mitigation strategies; and
- (12) provide highly secure information systems for controlling the operation of pipelines.

(c) AREAS.— In carrying out this title, the Secretary of Transportation, in coordination with the Secretary of Energy, shall consider research and development on natural gas, crude oil, and petroleum product pipelines for—

- (1) early crack, defect, and damage detection, including real-time damage monitoring;
- (2) automated internal pipeline inspection sensor systems;
- (3) land use guidance and set back management along pipeline rights-of-way for communities;
- (4) internal corrosion control;
- (5) corrosion-resistant coatings;
- (6) improved cathodic protection;
- (7) inspection techniques where internal inspection is not feasible, including measurement of structural integrity;
- (8) external leak detection, including portable real-time video imaging technology, and the advancement of computerized control center leak detection systems utilizing real-time remote field

1 data input;

2 (9) longer life, high strength, non-corrosive pipeline materials;

3 (10) assessing the remaining strength of existing pipes;

4 (11) risk and reliability analysis models, to be used to identify safety improvements that could
5 be realized in the near term resulting from analysis of data obtained from a pipeline performance
6 tracking initiative.

7 (12) identification, monitoring, and prevention of outside force damage, including satellite
8 surveillance; and

9 (13) any other areas necessary to ensuring the public safety and protecting the environment.

10 (d) POINTS OF CONTACT.—

11 (1) DESIGNATION.— To coordinate and implement the research and development programs
12 and activities authorized under this title—

13 (A) the Secretary of Transportation shall designate, as the point of contact for the
14 Department of Transportation, an officer of the Department of Transportation who has been
15 appointed by the President and confirmed by the Senate; and

16 (B) the Secretary of Energy shall designate, as the point of contact for the Department
17 of Energy, an officer of the Department of Energy who has been appointed by the President
18 and confirmed by the Senate.

19 (2) DUTIES.— (A) The point of contact for the Department of Transportation shall have the
20 primary responsibility for coordinating and overseeing the implementation of the research,
21 development, and demonstration program plan, as defined in subsections (e) and (f).

22 (B) The points of contact shall jointly assist in arranging cooperative agreements for

1 research, development, and demonstration involving their respective Departments, national
2 laboratories, universities, and industry research organizations.

3 (e) RESEARCH AND DEVELOPMENT PROGRAM PLAN.— Within 240 days after the
4 date of enactment of this Act, the Secretary of Transportation, in coordination with the Secretary of
5 Energy and the Pipeline Integrity Technical Advisory Committee, shall prepare and submit to the
6 Congress a 5-year program plan to guide activities under this Act. In preparing the program plan, the
7 Secretary of Transportation shall consult with appropriate representatives of the natural gas, crude
8 oil, and petroleum product pipeline industries to select and prioritize appropriate project proposals.
9 The Secretary may also seek the advice of utilities, manufacturers, institutions of higher learning,
10 Federal agencies, the pipeline research institutions, national laboratories, State pipeline safety
11 officials, environmental organizations, pipeline safety advocates, and professional and technical
12 societies.

13 (f) IMPLEMENTATION.— The Secretary of Transportation shall have primary responsibility
14 for ensuring the five-year plan provided for in subsection (e) is implemented as intended by this Act.
15 In carrying out the research, development, and demonstration activities under this Act, the Secretary
16 of Transportation and the Secretary of Energy may use, to the extent authorized under applicable
17 provisions of law, contracts, cooperative agreements, cooperative research and development
18 agreements under the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et
19 seq.), grants, joint ventures, other transactions, and any other form of agreement available to the
20 Secretary consistent with the recommendations of the Advisory Committee.

21 (g) REPORTS TO CONGRESS.— The Secretary of Transportation shall report to the
22 Congress annually as to the status and results to date of the implementation of the research and

1 development program plan. The report shall include the activities of the Department of
2 Transportation, the Department of Energy, the national laboratories, universities, and any other
3 research organizations, including industry research organizations.

4 **SEC. 1102. PIPELINE INTEGRITY TECHNICAL ADVISORY COMMITTEE.**

5 (a) ESTABLISHMENT.— The Secretary of Transportation shall enter into appropriate
6 arrangements with the National Academy of Sciences to establish and manage the Pipeline Integrity
7 Technical Advisory Committee for the purpose of advising the Secretary of Transportation and the
8 Secretary of Energy on the development and implementation of the five-year research, development,
9 and demonstration program plan as defined in section 1101(e). The Advisory Committee shall have
10 an ongoing role in evaluating the progress and results of the research, development, and
11 demonstration carried out under this title.

12 (b) MEMBERSHIP.— The National Academy of Sciences shall appoint the members of the
13 Pipeline Integrity Technical Advisory Committee after consultation with the Secretary of
14 Transportation and the Secretary of Energy. Members appointed to the Advisory Committee should
15 have the necessary qualifications to provide technical contributions to the purposes of the Advisory
16 Committee.

17 **SEC. 1103. AUTHORIZATION OF APPROPRIATIONS.**

18 (a) There are authorized to be appropriated to the Secretary of Transportation for carrying out
19 this title \$3,000,000, which is to be derived from user fees (49 U.S.C. Sec. 60125), for each of the
20 fiscal years 2002 through 2006.

21 (b) Of the amounts available in the Oil Spill Liability Trust Fund (26 U.S.C. Sec. 9509),
22 \$3,000,000 shall be transferred to the Secretary of Transportation to carry out programs for detection,

1 prevention, and mitigation of oil spills authorized in this title for each of the fiscal years 2002
2 through 2006.

3 (c) There are authorized to be appropriated to the Secretary of Energy for carrying out this
4 title such sums as may be necessary for each of the fiscal years 2002 through 2006.

5 **DIVISION D—DIVERSIFYING ENERGY DEMAND**

6 **AND IMPROVING EFFICIENCY**

7 **TITLE XII—VEHICLES**

8 **SEC. 1201. VEHICLE FUEL EFFICIENCY.**

9 (a) REQUIREMENT.--The Secretary of Transportation, in consultation with the Secretary
10 of Energy and the Administrator of the Environmental Protection Agency, shall develop and
11 implement mechanisms to increase fuel efficiency of light-duty vehicles to limit total demand for
12 petroleum products by light-duty vehicles in the year 2008 and thereafter to no more than 105
13 percent of the consumption by such vehicles in the year 2000.

14 (b) NEGOTIATIONS.— Upon completion of the study of the National Academy of Sciences
15 on the effectiveness and impact of corporate average fuel economy standards, and taking into
16 account its findings, the Secretary of Transportation, in coordination with the Secretary of Energy
17 and the Administrator of the Environmental Protection Agency, shall negotiate with the
18 manufacturers of automobiles sold in the United States enforceable mechanisms to increase vehicle
19 efficiency or provide vehicle alternatives to meet the petroleum demand target in subsection (a)
20 while ensuring consumers reliable and affordable transportation services.

21 (c) RULES.— Upon completion of the negotiations under subsection (b) and, in any event,
22 not later than 18 months after the date of enactment of this section, the Secretary of Transportation

1 shall establish, by rule--

2 (1) the enforceable mechanisms agreed to under subsection (b); or

3 (2) if enforceable mechanism cannot be agreed on under subsection (b), specific fuel
4 economy regulations to meet the petroleum demand targets under subsection (a).

5 (c) ANALYSES AND REPORTS TO CONGRESS.—The Department of Energy shall assist
6 the Secretary of Transportation by carrying out analyses of recommended policies or combinations
7 of policies to determine if the petroleum demand target in subsection (a) is likely to be met. Once
8 enforceable mechanisms are adopted under subsection (b), the Secretary of Energy shall track
9 progress towards meeting the petroleum demand target and shall report to Congress three years after
10 the date of enactment of this section, and every two years thereafter until the year 2008, on the
11 Secretary of Energy's determination as to whether the mechanisms are effectively meeting the
12 petroleum demand target. If the Secretary of Energy determines that the mechanisms are not
13 effectively meeting the target, then the Secretary shall recommend in the report to Congress on
14 further policies that may be required to meet the target.

15 (d) DEFINITIONS.—In this section:

16 (1) LIGHT-DUTY VEHICLES.—The term “light duty vehicles” includes passenger
17 automobiles, in addition to all light trucks and sport utility vehicles marketed as passenger vehicles,
18 regardless of weight.

19 (2) MECHANISMS.—The term “mechanisms” includes stronger standards for corporate
20 average fuel economy, alternatives to the current fuel economy standards such as combining cars and
21 light trucks for the purpose of fuel economy regulation, specific fuel efficiency standards by vehicle
22 class, tax incentives for highly efficient or alternative fuel vehicles, updating and expanding the

1 scope of the current gas guzzler tax program, and new programs to promote the purchase of high
2 efficiency and alternative fuel vehicles or early retirement of inefficient vehicles.

3 **SEC. 1202. INCREASED USE OF ALTERNATIVE FUELS BY FEDERAL FLEETS.**

4 (a) REQUIREMENT TO USE ALTERNATIVE FUELS.— Section 400AA(a)(3)(E) of the
5 Energy Policy and Conservation Act (42 U.S.C. 6374(a)(3)(E)) is amended to read as follows:

6 “Dual fueled vehicles acquired pursuant to this section shall be operated on alternative fuels.

7 If the Secretary determines that all dual fueled vehicles acquired pursuant to this section
8 cannot operate on alternative fuels at all times, he may waive the requirement in part, but
9 only to the extent that:

10 “(i) not later than September 30, 2003, not less than 50 percent of the total
11 annual volume of fuel used in such dual fueled vehicles shall be from alternative
12 fuels; and

13 “(ii) not later than September 30, 2005, not less than 75 percent of the total
14 annual volume of fuel used in such dual fueled vehicles shall be from alternative
15 fuels.”.

16 (b) Section 400AA(g)(4)(B) of the Energy Policy and Conservation Act (42 U.S.C.
17 6374(g)(4)(B)) is amended by adding, after the words, “solely on alternative fuel”, “, including a
18 three-wheeled enclosed electric vehicle having a vehicle identification number”.

19 **SEC. 1203. EXCEPTION TO HOV PASSENGER REQUIREMENTS FOR ALTERNATIVE**
20 **FUEL VEHICLES.**

21 Section 102(a)(1) of title 23, United States Code, is amended by inserting after “required”
22 the following: “(unless, in the discretion of the State transportation department, the vehicle is being

operated on, or is being fueled by, an alternative fuel (as defined in section 301(2) of the Energy Policy Act of 1992 (42 U.S.C. 13211(2)))”.

TITLE XIII—FACILITIES

SEC. 1301. FEDERAL ENERGY BANK.

(a) DEFINITIONS.--In this section:

(1) AGENCY.— The term “agency” means--

(A) an Executive agency (as defined in section 105 of title 5, United States Code, except that the term also includes the United States Postal Service);

(B) Congress and any other entity in the legislative branch; and

(C) a court and any other entity in the judicial branch.

(2) BANK.— The term “Bank” means the Federal Energy Bank established by subsection (b).

(3) ENERGY EFFICIENCY PROJECT.— The term “energy efficiency project” means a project that assists an agency in meeting or exceeding the energy efficiency goals stated in--

(A) part 3 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8251 et seq.);

(B) subtitle F of title I of the Energy Policy Act of 1992; and

(C) applicable Executive orders, including Executive Order Nos. 12759 and 12902.

(4) SECRETARY.— The term “Secretary” means the Secretary of Energy.

(5) TOTAL UTILITY PAYMENTS.— The term “total utility payments” means payments made to supply electricity, natural gas, and any other form of energy to provide the heating, ventilation, and air conditioning, lighting, and other energy needs of an agency facility.

(b) ESTABLISHMENT OF BANK.—

1 (1) IN GENERAL- There is established in the Treasury of the United States a trust
2 fund to be known as the “Federal Energy Bank”, consisting of--

3 (A) such amounts as are appropriated to the Bank under subsection (f);

4 (B) such amounts as are transferred to the Bank under paragraph (2);

5 (C) such amounts as are repaid to the Bank under subsection (c)(2)(D); and

6 (D) any interest earned on investment of amounts in the Bank under
7 paragraph (3).

8 (2) TRANSFERS TO BANK.—

9 (A) IN GENERAL.— At the beginning of each of fiscal years 2002, 2003, and 2004,
10 each agency shall transfer to the Secretary of the Treasury, for deposit in the Bank, an
11 amount equal to 5 percent of the total utility payments paid by the agency in the preceding
12 fiscal year.

13 (B) UTILITIES PAID FOR AS PART OF RENTAL PAYMENTS.— The Secretary
14 shall by regulation establish a formula by which the appropriate portion of a rental payment
15 that covers the cost of utilities shall be considered to be a utility payment for the purposes
16 of subparagraph (A).

17 (3) INVESTMENT OF FUNDS.— The Secretary of the Treasury shall invest such portion of
18 funds in the Bank as is not, in the Secretary's judgment, required to meet current withdrawals.
19 Investments may be made only in interest-bearing obligations of the United States.

20 (c) LOANS FROM THE BANK.—

21 (1) IN GENERAL.— The Secretary of the Treasury shall transfer from the Bank to the
22 Secretary such amounts as are appropriated to carry out the loan program under paragraph (2).

1 (2) LOAN PROGRAM.—

2 (A) IN GENERAL.— In accordance with subsection (d), the Secretary shall establish
3 a program to loan amounts from the Bank to any agency that submits an application
4 satisfactory to the Secretary in order to finance an energy efficiency project.

5 (B) PERFORMANCE CONTRACTING FUNDING.— To the extent practicable, an
6 agency shall not submit a project for which performance contracting funding is available.

7 (C) PURPOSES OF LOAN.—

8 (i) IN GENERAL.— A loan under this section may be made to pay the costs
9 of--

10 (I) an energy efficiency project; or

11 (II) development and administration of a performance contract.

12 (ii) LIMITATION.— An agency may use not more than 15 percent of the
13 amount of a loan under clause (i)(I) to pay the costs of administration and proposal
14 development (including data collection and energy surveys).

15 (D) REPAYMENTS.--

16 (i) IN GENERAL.— An agency shall repay to the Bank the principal amount
17 of the energy efficiency project loan plus interest at a rate determined by the
18 President, in consultation with the Secretary and the Secretary of the Treasury.

19 (ii) WAIVER.— The Secretary may waive the requirement of clause (i) if the
20 Secretary determines that payment of interest by an agency is not required to sustain
21 the needs of the Bank in making energy efficiency project loans.

22 (E) AGENCY ENERGY BUDGETS.— Until a loan is repaid, an agency budget

submitted to Congress for a fiscal year shall not be reduced by the value of energy savings accrued as a result of the energy conservation measure implemented with funds from the Bank.

(F) AVAILABILITY OF FUNDS.— An agency shall not rescind or reprogram funds made available by this Act. Funds loaned to an agency shall be retained by the agency until expended, without regard to fiscal year limitation.

(d) SELECTION CRITERIA.—

(1) IN GENERAL.— The Secretary shall establish criteria for the selection of energy efficiency projects to be awarded loans in accordance with paragraph (2).

(2) SELECTION CRITERIA.— The Secretary may make loans only for energy efficiency projects that--

(A) are technically feasible;

(B) are determined to be cost-effective using life cycle cost methods established by the Secretary by regulation;

(C) include a measurement and management component to--

(i) commission energy savings for new Federal facilities; and

(ii) monitor and improve energy efficiency management at existing Federal facilities; and

(D) have a project payback period of 7 years or less.

(e) REPORTS AND AUDITS.—

(1) REPORTS TO THE SECRETARY.— Not later than 1 year after the installation of an energy efficiency project that has a total cost of more than \$1,000,000, and each year thereafter, an

1 agency shall submit to the Secretary a report that--

2 (A) states whether the project meets or fails to meet the energy savings projections
3 for the project; and

4 (B) for each project that fails to meet the savings projections, states the reasons for
5 the failure and describes proposed remedies.

6 (2) AUDITS.— The Secretary may audit any energy efficiency project financed with funding
7 from the Bank to assess the project's performance.

8 (3) REPORTS TO CONGRESS.— At the end of each fiscal year, the Secretary shall submit
9 to Congress a report on the operations of the Bank, including a statement of the total receipts into
10 the Bank, and the total expenditures from the Bank to each agency.

11 (f) AUTHORIZATION OF APPROPRIATIONS.— There are authorized to be appropriated
12 such sums as are necessary to carry out this section.

13 **SEC. 1302. INCENTIVES FOR ENERGY EFFICIENT SCHOOLS.**

14 (a) ESTABLISHMENT.— There is established in the Department of Education the High
15 Performance Schools Program (hereafter in this section referred to as the “Program”).

16 (b) GRANTS.— The Secretary of Education may make grants to State educational agencies—

17 (1) to assist schools in achieving energy efficiency performance not less than 30
18 percent below the least efficient levels, as measured over the full fuel cycle, permitted under
19 the 1998 International Energy Conservation Code as it is in effect for new construction and
20 existing buildings;

21 (2) to administer the Program; and

22 (3) to promote participation in the Program.

1 (c) GRANTS TO ASSIST SCHOOL DISTRICTS.— Grants under subsection (b)(1) shall be
2 used for schools that—

3 (1) have demonstrated a need for such grants in order to respond appropriately to
4 increasing elementary and secondary school enrollments or to make major investments in
5 renovation of school facilities;

6 (2) have demonstrated that the districts do not have adequate funds to respond
7 appropriately to such enrollments or achieve such investments without assistance;

8 (3) have made a commitment to use the grant funds to develop high performance
9 school buildings in accordance with a plan that the State educational agency, in consultation
10 with the State energy office, has determined is feasible and appropriate to achieve the
11 purposes for which the grant is made.

12 (d) GRANTS FOR ADMINISTRATION.— Grants under subsection (b)(2) shall be used to—

13 (A) evaluate compliance by schools with requirements of this section;

14 (B) distribute information and materials to clearly define and promote the
15 development of high performance school buildings for both new and existing facilities;

16 (C) organize and conduct programs for school board members, school personnel,
17 architects, engineers, and others to advance the concepts of high performance school
18 buildings;

19 (D) obtain technical services and assistance in planning and designing high
20 performance school buildings; or

21 (E) collect and monitor data and information pertaining to the high performance
22 school building projects.

1 (e) GRANTS TO PROMOTE PARTICIPATION.— Grants under subsection (b)(3) shall be
2 used for promotional and marketing activities, including facilitating private and public financing,
3 promoting the use of energy service companies, working with school administrations, students, and
4 communities, and coordinating public benefit programs.

5 (f) SUPPLEMENTING GRANT FUNDS.— The State educational agency shall encourage
6 qualifying schools to supplement funds awarded pursuant to this section with funds from other
7 sources in the implementation of their plans.

8 (g) PURPOSES.— Except as provided in subsection (h), funds appropriated to carry out this
9 section shall be allocated as follows:

10 (1) 70 percent shall be used to make grants under subsection (b)(1).

11 (2) 15 percent shall be used to make grants under subsection (b)(2).

12 (3) 15 percent shall be used to make grants under subsection (b)(3).

13 (h) OTHER FUNDS.— The Secretary of Education may retain an amount, not to exceed
14 \$300,000 per year, to assist State educational agencies designated in coordinating and implementing
15 the Program. Such funds may be used to develop reference materials to further define the principles
16 and criteria to achieve high performance school buildings.

17 (i) AUTHORIZATION OF APPROPRIATIONS.— For grants under subsection (b) there are
18 authorized to be appropriated—

19 (1) \$200,000,000 for fiscal year 2002,

20 (2) \$210,000,000 for fiscal year 2003,

21 (3) \$220,000,000 for fiscal year 2004,

22 (4) \$230,000,000 for fiscal year 2005, and

(5) such sums as may be necessary for each of the subsequent 6 fiscal years.

(j) DEFINITIONS.— For purposes of this section:

(1) HIGH PERFORMANCE SCHOOL BUILDING.— The term “high performance school building” refers to a school building that, in its design, construction, operation, and maintenance, maximizes use of renewable energy, direct use of environmentally clean fossil fuels for supplementary space conditioning and water heating and energy conservation practices, represents the most cost-effective alternatives on a life-cycle basis considering energy price forecasts from the U. S. Energy Information Administration, uses affordable, environmentally preferable, durable materials, enhances indoor environmental quality, protects and conserves water, and optimizes site potential.

(2) RENEWABLE ENERGY.— The term “renewable energy” means energy produced by solar, wind, geothermal, hydropower, and biomass power.

(3) SCHOOL.— The term “school” means—

(A) an “elementary school” as that term is defined in section 14101(14) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(14)),

(B) a “secondary school” as that term is defined in section 14101(25) of of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(25)), or

(C) an elementary of secondary Indian school funded by the Bureau of Indian Affairs.

(4) STATE EDUCATIONAL AGENCY.— The term “State educational agency” has the same meaning given such term in section 14101(28) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(28)).

SEC. 1303. VOLUNTARY COMMITMENTS TO REDUCE INDUSTRIAL ENERGY

INTENSITY.

(a) VOLUNTARY AGREEMENTS.--The Secretary of Energy shall enter into voluntary agreements with one or more persons in industrial sectors that consume significant amounts of primary energy per unit of physical output to reduce the energy intensity of their production activities.

(b) GOAL.-- Voluntary agreements under this section shall have a goal of reducing energy intensity by not less than 1 percent each year from 2002 through 2012.

(c) RECOGNITION.-- The Secretary of Energy, in cooperation with other appropriate federal agencies, shall develop mechanisms to recognize and publicize the commitments made by participants in voluntary agreements under this section.

(d) DEFINITION.--In this section, the term “energy intensity” means the primary energy consumed per unit of physical output in an industrial process.

**DIVISION E--ENHANCING RESEARCH, DEVELOPMENT,
AND TRAINING**

TITLE XIV--RESEARCH AND DEVELOPMENT PROGRAMS

SEC. 1401. SHORT TITLE AND FINDINGS.

(a) SHORT TITLE.--This title may be cited as “Energy Science and Technology Enhancement Act”.

(b) FINDINGS.--

(1) A coherent strategy for ensuring a diverse national energy supply requires an energy research and development program that supports basic energy research and provides mechanisms to develop, demonstrate, and deploy new energy technologies in partnership

1 with industry.

2 (2) Federal budget authority for energy research and development, measured in
3 constant 1992 dollars, has declined roughly three-fourths from about \$6 billion in 1980 to
4 \$1.5 billion in 2000.

5 (3) According to the Energy Information Administration, an aggressive national
6 energy research, development, and technology deployment program can—

7 (A) result in United States energy intensity declines of 1.9 percent per year
8 from 1999 to 2020;

9 (B) reduce United States energy consumption in 2020 by 8 quadrillion Btu
10 from otherwise expected levels; and

11 (C) reduce carbon dioxide emissions from expected levels of 166 million
12 metric tons in carbon equivalent in 2020.

13 (4) An aggressive national energy research, development, and technology deployment
14 program can also help maintain domestic United States production of energy. As one
15 example, such a program could increase the success rates of finding and drilling for oil and
16 natural gas, and thereby increase United States hydrocarbon reserves in 2020 by 14 percent
17 over otherwise expected levels, and contributing to natural gas prices in 2020 that would be
18 20 percent lower than otherwise expected.

19 (5) An aggressive national energy research, development, and technology deployment
20 program is needed if United States suppliers and manufacturers are to compete in future
21 markets for advanced energy technologies. Vehicles based on advanced energy technologies
22 in automotive applications could account, for example, for nearly 17 percent of all light-duty

1 vehicle sales by 2020 displacing 203,000 oil barrels a day equivalent.

2 (6) To achieve these results across a broad range of sources of energy supply and
3 energy end-uses, a comprehensive and balanced energy research, development, and
4 technology deployment program must be supported by the Department of Energy.

5 **SEC. 1402. ENHANCED ENERGY EFFICIENCY RESEARCH AND DEVELOPMENT.**

6 (a) GOALS.—It is the sense of Congress that a balanced energy research, development, and
7 deployment program to enhance energy efficiency should have the following goals:

8 (1) For energy efficiency in housing, the program develop technologies, housing
9 components, designs and production methods that will, by 2010—

10 (A) reduce the time needed to move technologies to market by 50 percent,

11 (B) reduce the monthly cost of new housing by 20 percent,

12 (C) cut the environmental impact and energy use of new housing by 50
13 percent, and

14 (D) reduce energy use in 15 million existing homes by 30 percent, and

15 (E) improve durability and reduce maintenance costs by 50 percent.

16 (2) For industrial energy efficiency, the program should, in cooperation with the
17 affected industries—

18 (A) develop a microturbine (40 to 300 kilowatt) that is more than 40 percent
19 efficient by 2006,

20 (B) develop a microturbine that is more than 50 percent efficient by 2010,

21 (C) develop advanced materials for combustion systems that reduce emissions
22 of nitrogen oxides by 30 to 50 percent while increasing efficiency 5 to 10 percent by

2007, and

(D) improve the energy intensity of the major energy-consuming industries by at least 25 percent by 2010.

(3) For transportation energy efficiency, the program should, in cooperation with affected industries—

(A) develop an 80-mile-per-gallon production prototype passenger automobile by 2004,

(B) develop a heavy truck (Classes 7 and 8) with ultra low emissions and the ability to use an alternative fuel that has an average fuel economy of—

(i) 10 miles per gallon by 2007, and

(ii) 13 miles per gallon by 2010,

(C) develop a production prototype of a passenger automobile with zero equivalent emissions that has an average fuel economy of 100 miles per gallon by 2010, and

(D) improve, by 2010, the average fuel economy of trucks—

(i) in Classes 1 and 2 by 300 percent, and

(ii) in Classes 3 through 6 by 200 percent.

(b) DEFINITION.— For purposes of subsection (a)(2), the term “major energy consuming industries” means—

(1) the forest product industry,

(2) the steel industry,

(3) the aluminum industry,

- (4) the metal casting industry,
- (5) the chemical industry,
- (6) the petroleum refining industry, and
- (7) the glass-making industry.

(c) AUTHORIZATION OF APPROPRIATIONS.--There are authorized to be appropriated to the Secretary of Energy for operating expenses and capital equipment for research, development, demonstration, and initial deployment assistance activities related to energy efficiency research and development including state and local grants and the federal energy management program--

- (1) \$879,000,000 for fiscal year 2002;
- (2) \$948,000,000 for fiscal year 2003;
- (3) \$1,024,000,000 for fiscal year 2004;
- (4) \$1,106,000,000 for fiscal year 2005; and
- (5) \$1,195,000,000 for fiscal year 2006.

(d) SPECIAL PROJECTS IN ENERGY-EFFICIENT TRANSMISSION.-- From amounts authorized under this section, the Secretary of Energy shall make not more than 3 awards for projects demonstrating the use of advanced technology--

- (1) to construct a bulk electricity transmission line of not less than 35 miles based on wire fabricated from superconducting materials; and
- (2) to provide a 20 percent increase in the average efficiency in electricity transmission systems in rural and remote areas.

SEC. 1403. ENHANCED RENEWABLE ENERGY RESEARCH AND DEVELOPMENT.

(a) GOALS.--It is the sense of Congress that a balanced energy research, development, and

1 deployment program to enhance renewable energy should have the following goals.

2 (1) For wind power, the program should reduce the cost of wind electricity by 50
3 percent by 2006, so that wind power can be widely competitive with fossil-fuel-based
4 electricity in a restructured electric industry, with concentration within the program on a
5 variety of advanced wind turbine concepts and manufacturing technologies.

6 (2) For photovoltaics, the programs should pursue research and development that
7 would lead to photovoltaic systems prices of \$3,000 per kilowatt in 2003 and \$1500 per
8 kilowatt by 2006. Program activities should include assisting industry in developing
9 manufacturing technologies, giving greater attention to balance of system issues, and
10 expanding fundamental research on relevant advanced materials.

11 (3) For solar thermal electric systems the program should strengthen ongoing research
12 and development combining high-efficiency and high-temperature receivers with advanced
13 thermal storage and power cycles, with the goal of making solar-only power (including
14 baseload solar power) widely competitive with fossil fuel power by 2015.

15 (4) For biomass-based power systems, the program should enable commercialization,
16 within five years, integrated power-generating technologies that employ gas turbines and
17 fuel cells integrated with biomass gasifiers. The program should embrace an interagency
18 bioenergy framework to triple United States bioenergy use by 2010.

19 (5) For geothermal energy, the programs should continue work on hydrothermal
20 systems, and reactivate research and development on advanced concepts, giving top priority
21 to high-grade hot dry-rock geothermal energy. This technology offers the long-term
22 potential, with advanced drilling and reservoir exploitation technology, of providing heat and

1 baseload electricity in most areas of the United States.

2 (6) For biofuels, the program should accelerate research and development on
3 advanced enzymatic hydrolysis technology for making ethanol from cellulosic feedstock,
4 with the goal that between 2010 and 2015 ethanol produced from energy crops would be
5 fully competitive in terms of price with gasoline as a neat fuel, in either internal combustion
6 engine or fuel cell vehicles. The programs should coordinate this development with the
7 biopower program so as to co-optimize the production of ethanol from the carbohydrate
8 fractions of the biomass and electricity from the lighting using advanced biopower
9 technology using a suite of integrated systems from gas turbines to fuel cells.

10 (7) For hydrogen-based energy systems, the program should support research and
11 development on hydrogen-using and hydrogen-producing technologies. The programs
12 should also coordinate hydrogen-using technology development with
13 proton-exchange-membrane fuel-cell vehicle development activities under the enhanced
14 energy efficiency program in section 1002.

15 (8) For hydropower, the program should provide a new generation of turbine
16 technologies that are less damaging to fish and aquatic ecosystems. By deploying such
17 technologies at existing dams and in new low-head, run-of-river applications, as much as an
18 additional 50,000 MW could be possible by 2020.

19 (9) For electric energy and storage, the program should develop a high capacity
20 superconducting transmission lines, generators, and develop distributed generating systems
21 to accommodate multiple types of energy sources under a common interconnect standard.

22 (b) AUTHORIZATION OF APPROPRIATIONS.--There are authorized to be appropriated

to the Secretary of Energy for operating expenses and capital equipment for research, development, demonstration, and initial deployment assistance activities related to solar and renewable resources technologies, under the Office of Energy Efficiency and Renewable Energy, as follows:

- (1) \$419,500,000 for fiscal year 2002;
- (2) \$468,000,000 for fiscal year 2003;
- (3) \$523,000,000 for fiscal year 2004;
- (4) \$583,000,000 for fiscal year 2005; and
- (5) \$652,000,000 for fiscal year 2006.

(d) SPECIAL PROJECTS IN RENEWABLE ENERGY.—From amounts authorized under this section, the Secretary of Energy shall make not more than 3 awards for projects demonstrating the use of advanced wind energy technology to assist in delivering electricity in rural and remote locations. The Secretary may provide financial assistance to rural electric cooperatives and other rural entities seeking to submit proposals for such projects.

SEC. 1404. ENHANCED FOSSIL ENERGY RESEARCH AND DEVELOPMENT.

(a) GOALS.—It is the sense of Congress that a balanced energy research, development, and deployment program to enhance renewable energy should have the following goals:

- (1) For core fossil energy research and development, the program should achieve the goals outlined by the Department of Energy's Vision 21 program for fossil energy research. This research should aim towards increased efficiency of the combined cycle using high temperature fuel cells, advanced gasification technologies for coal and biomass to produce power and clean fuels. The program should include a carbon dioxide based sequestration program to help reduce global warming.

1 (2) For offshore oil and natural gas resources, the program should investigate and
2 develop technologies to—

3 (A) extract methane hydrates in coastal waters of the United States, and

4 (B) develop natural gas and oil reserves in the ultra-deepwater of the Central
5 and Western Gulf of Mexico. Research and development on ultra-deepwater
6 resource recovery shall focus on improving the safety and efficiency of such recovery
7 and of sub-sea production technology used for such recovery, while lowering costs.

8 (3) For transportation fuels, the program should support a comprehensive
9 transportation fuels strategy to increase the price elasticity of oil supply and demand by
10 focusing research on reducing the cost of producing transportation fuels from natural gas and
11 indirect liquefaction of coal and biomass.

12 (b) STUDY.— The Secretary of Energy, in consultation with the Secretary of Interior, the
13 Administrator of the Environmental Protection Agency and affected industries (including electric
14 utilities, electrical equipment manufacturers, and organizations representing electrical workers)
15 should conduct a study to identify technologies and a research program that would permit the cost-
16 competitive use of coal for electricity generation through 2020 while furthering national
17 environmental goals.

18 (c) AUTHORIZATION OF APPROPRIATIONS.— In addition to the amounts authorized
19 under section 814 of this Act, there are authorized to be appropriated to the Secretary of Energy for
20 operating expenses and capital equipment for research, development, demonstration, and initial
21 deployment assistance activities related to fossil energy resources technologies, under the Office of
22 Fossil Energy, including the clean coal technology demonstration program:

- (1) \$462,500,000 for fiscal year 2002;
- (2) \$485,000,000 for fiscal year 2003;
- (3) \$508,000,000 for fiscal year 2004;
- (4) \$532,000,000 for fiscal year 2005; and
- (5) \$558,000,000 for fiscal year 2006.

SEC. 1405. ENHANCED NUCLEAR ENERGY RESEARCH AND DEVELOPMENT.

(a) GOALS.—It is the sense of Congress that a balanced energy research, development, and deployment program to enhance renewable energy should have the following goals.

(1) The program should support research related to existing United States nuclear power reactors to extend their lifetimes and increase their reliability while optimizing their current operations for greater efficiencies.

(2) The program should address examine advanced proliferation-resistant reactor designs, proliferation-resistant and high burn-up nuclear fuels, minimization of generation of radioactive materials, improved nuclear waste management technologies, and improved instrumentation science.

(3) The program should attract new students and faculty to the nuclear sciences and nuclear engineering through a university-based fundamental research program for existing faculty and new junior faculty, a program to re-license existing training reactors at universities in conjunction with industry, and a program to complete the conversion of existing training reactors with proliferation resistant fuels that are low enriched and to adapt those reactors to new investigative uses.

(4) The program should maintain a national capability and infrastructure to produce

1 medical isotopes and ensure a well trained cadre of nuclear medicine specialists in
2 partnership with industry.

3 (5) The program should ensure that our nation has adequate capability for power
4 future satellite and space missions.

5 (6) The programs should investigate the fundamental and applied sciences associated
6 with high- and low-energy accelerators as a method to transmute nuclear waste, particularly
7 wastes that may be difficult to dispose of by other methods.

8 (7) The program should maintain, where appropriate through a prioritization
9 process, a balanced research infrastructure so that future research programs can utilize these
10 facilities.

11 (b) AUTHORIZATION OF APPROPRIATIONS.--There are authorized to be appropriated
12 to the Secretary of Energy for operating expenses and capital equipment for research, development,
13 demonstration, and initial deployment assistance activities related to nuclear energy research and
14 development:

15 (1) \$433,000,000 for fiscal year 2002;

16 (2) \$461,000,000 for fiscal year 2003;

17 (3) \$491,000,000 for fiscal year 2004;

18 (4) \$523,000,000 for fiscal year 2005; and

19 (5) \$557,000,000 for fiscal year 2006.

20 **SEC. 1406. ENHANCED PROGRAMS IN FUNDAMENTAL ENERGY SCIENCE.**

21 (a) FINDINGS.--The Congress finds the following:

22 (1) The Office of Science within the Department of Energy is the nation's single

1 largest funding source for the basic physical sciences. These intellectual disciplines, which
2 include physics, chemistry, and materials science, are crucial to the nation's future ability to
3 develop energy technologies. The United States should be the world leader in these areas.

4 (2) Despite the importance of the physical sciences, the Office of Science budget has
5 remained stagnant over the past decade.

6 (3) The stagnation in funding for the physical sciences through the Office of Science
7 has been reflected in a decline in United States contributions to leading scientific journals,
8 as the share of European and Asian submissions to these journals since 1990 has increased
9 from 50 to 75 percent while the United States share has decreased to 25 percent.

10 (b) GOALS.-- It is the sense of Congress that the Department of Energy, through the Office
11 of Science, should--

12 (1) develop a robust portfolio of fundamental energy research, including chemical
13 sciences, physics, materials sciences, biological and environmental sciences, geosciences,
14 engineering sciences, plasma sciences, mathematics, and advanced scientific computing;

15 (2) maintain, upgrade and expand the scientific user facilities maintained by the
16 Office of Science and insure that they are an integral part of the Department's mission for
17 exploring the frontiers of fundamental energy sciences;

18 (3) maintain a leading-edge research capability in the energy-related aspects of
19 nanoscience and nanotechnology, advanced scientific computing and genome research; and

20 (4) ensure that its fundamental energy sciences programs, where appropriate, help
21 inform the applied research and development programs of the Department.

22 (b) AUTHORIZATION OF APPROPRIATIONS.--There are authorized to be appropriated

to the Secretary of Energy for operating expenses and capital equipment for fundamental energy research and development in the Office of Science –

- (1) \$3,716,000,000 for fiscal year 2002;
- (2) \$4,087,000,000 for fiscal year 2003;
- (3) \$4,496,000,000 for fiscal year 2004;
- (4) \$4,946,000,000 for fiscal year 2005; and
- (5) \$5,440,000,000 for fiscal year 2006.

TITLE XV—MANAGEMENT OF DOE SCIENCE AND TECHNOLOGY PROGRAMS

SEC. 1501. MERIT REVIEW.

Awards of funds authorized under title XIV shall be made only after independent review of the scientific and technical merit of the proposals therefor has been undertaken by the Department of Energy.

SEC. 1502. COST SHARING.

(a) RESEARCH AND DEVELOPMENT.—For research and development projects funded from appropriations authorized under sections 1402 through 1405, the Secretary of Energy shall require a commitment from non-Federal sources of at least 20 percent of the cost of the project. The Secretary may reduce or eliminate the non-Federal requirement under this paragraph if the Secretary determines that the research and development is of a basic or fundamental nature.

(b) DEMONSTRATION AND DEPLOYMENT.—For demonstration and deployment activities funded from appropriations authorized under sections 1402 through 1405, the Secretary of Energy shall require a commitment from non-Federal sources of at least 50 percent of the costs of the project directly and specifically related to any demonstration, deployment, or commercial

1 application.. The Secretary may reduce or eliminate the non-Federal requirement under this
2 paragraph if the Secretary determines that the reduction is necessary and appropriate considering the
3 technological risks involved in the project and is necessary to meet one or more goals of this title.

4 (c) CALCULATION OF AMOUNT.--In calculating the amount of the non-Federal
5 commitment under subsection (a) or (b), the Secretary shall include cash, personnel, services,
6 equipment, and other resources.

7 **SEC. 1503. IMPROVED COORDINATION AND MANAGEMENT OF SCIENCE AND**
8 **TECHNOLOGY.**

9 (a) NATIONAL ENERGY RESEARCH AND DEVELOPMENT ADVISORY BOARDS.--

10 (1) ESTABLISHMENT.--The Secretary of Energy shall establish an advisory board
11 to oversee Department of Energy research and development programs in each of the
12 following areas:

13 (A) energy efficiency;

14 (B) renewable energy;

15 (C) fossil energy; and

16 (D) nuclear energy.

17 The Secretary may designate an existing advisory board within the Department to fulfill the
18 responsibilities of an advisory board under this subsection, or may enter into appropriate
19 arrangements with the National Academy of Sciences to establish such an advisory board.

20 (2) UTILIZATION OF EXISTING COMMITTEES.--The Secretary of Energy shall
21 continue to use the scientific program advisory committees chartered under the Federal
22 Advisory Committee Act by the Office of Science to oversee research and development

1 programs under that Office.

2 (3) MEMBERSHIP.—Each advisory board under this subsection shall consist of
3 experts drawn from industry, academia, federal laboratories, or other research institutions.

4 (4) MEETINGS AND PURPOSES.—Each advisory board under this subsection shall
5 meet at least semi-annually to review and advise on the progress made by the respective
6 research, development, and deployment program. The advisory board shall also review the
7 adequacy and relevance of the goals established for each program by Congress and the
8 President, and may otherwise advise on promising future directions in research and
9 development that should be considered by each program.

10 (b) EFFECTIVE COORDINATION OF DEPARTMENT PROGRAMS.--Section 202(b)
11 of the Department of Energy Organization Act (42 U.S.C. 7132(b)) is amended to read as follows:

12 “(b)(1) There shall be in the Department an Under Secretary for Science and Technology,
13 who shall be appointed by the President, by and with the advice and consent of the Senate. The
14 Under Secretary shall be compensated at the rate provided for at level III of the Executive Schedule
15 under section 5314 of title 5, United States Code.

16 “(2) The Under Secretary for Science and Technology shall be appointed from among
17 persons who—

18 “(A) have extensive background in scientific or engineering fields; and

19 “(B) are well qualified to manage the civilian research and development programs
20 of the Department of Energy.

21 “(3) The Under Secretary for Science and Technology shall--

22 “(A) serve as the Science and Technology Advisor to the Secretary;

1 “(B) monitor the Department's research and development programs in order to advise
2 the Secretary with respect to any undesirable duplication or gaps in such programs;

3 “(C) advise the Secretary with respect to the well-being and management of the
4 multipurpose laboratories under the jurisdiction of the Department;

5 “(D) advise the Secretary with respect to education and training activities required
6 for effective short- and long-term basic and applied research activities of the Department;

7 “(E) advise the Secretary with respect to grants and other forms of financial assistance
8 required for effective short- and long-term basic and applied research activities of the
9 Department; and

10 “(F) exercise authority and responsibility over the performance of functions under
11 section 203(a)(2), as well as other civilian research and development authorities assigned to
12 the Secretary by statute.

13 (c) TRANSFER OF RESPONSIBILITIES FROM OFFICE OF SCIENCE.--Section 209 of
14 the Department of Energy Organization Act (41 U.S.C. 7139) is amended by--

15 (1) striking “(a)”; and

16 (2) striking subsection (b).

17 (d) TECHNICAL AND CONFORMING AMENDMENTS.--

18 (1) Section 202 of the Department of Energy Organization Act (42 U.S.C. 7132) is further
19 amended by adding the following at the end:

20 “(c) There shall be in the Department an Under Secretary, who shall be appointed by the
21 President, by and with the advice and consent of the Senate, and who shall perform such functions
22 and duties as the Secretary shall prescribe, consistent with this section. The Under Secretary shall

1 be compensated at the rate provided for level III of the Executive Schedule under section 5314 of
2 title 5, United States Code.

3 “(d) There shall be in the Department a General Counsel, who shall be appointed by the
4 President, by and with the advice and consent of the Senate. The General Counsel shall be
5 compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title
6 5, United States Code.”.

7 (2) Section 5314 of title 5, United States Code is amended by striking “Under Secretaries
8 of Energy (2)” and inserting “Under Secretaries of Energy (3)”.

9 **TITLE XVI – PERSONNEL AND TRAINING**

10 **SEC. 1601. WORKFORCE TRENDS AND TRAINEESHIP GRANTS.**

11 (a) WORKFORCE TRENDS.–

12 (1) MONITORING.– The Secretary of Energy, acting through the Administrator of the
13 Energy Information Administration, in consultation with the Secretary of Labor, shall monitor trends
14 in the workforce of skilled technical personnel supporting energy technology industries, including
15 renewable energy industries, companies developing and commercializing devices to increase energy-
16 efficiency, the oil and gas industry, nuclear power industry, the coal industry, and other industrial
17 sectors as the Secretary of Energy may deem appropriate.

18 (2) ANNUAL REPORTS.– The Administrator of the Energy Information Administration
19 shall include statistics on energy industry workforce trends in the annual reports of the Energy
20 Information Administration.

21 (3) SPECIAL REPORTS.– The Secretary shall report to the appropriate committees of
22 Congress whenever the Secretary determines that significant shortfalls of technical personnel in one

or more energy industry segments are forecast or have occurred.

(b) TRAINEESHIP GRANTS FOR TECHNICALLY SKILLED PERSONNEL.—

(1) GRANT PROGRAMS.— The Secretary shall establish grant programs in the appropriate offices of the Department of Energy to enhance training of technically skilled personnel for which a shortfall is determined under subsection (a).

(2) ELIGIBLE INSTITUTIONS.— As determined by the Secretary of Energy to be appropriate to the particular workforce shortfall, the Secretary shall make grants under paragraph (1) to—

(A) an institution of higher education (within the meaning given that term in section 1201(a) of the Higher Education Act of 1965 (20 U.S.C. 1141(a));

(B) a postsecondary educational institution providing vocational and technical education (within the meaning given those terms in section 3 of the Carl D. Perkins Vocational and Technical Education Act of 1998 (20 U.S.C. 2302)); or

(C) appropriate agencies of State, local, or tribal governments.

SEC. 1602. TRAINING GUIDELINES FOR ELECTRIC ENERGY INDUSTRY PERSONNEL.

(a) MODEL GUIDELINES.— The Secretary of Energy shall, in cooperation with electric utilities and local distribution companies and recognized representatives of employees of those entities, develop model employee training guidelines to support electric supply system reliability and safety.

(b) CONTENT OF GUIDELINES.— The guidelines under this section shall include—

(1) requirements for worker training, competency, and certification, developed using

1 criteria set forth by the Utility Industry Group recognized by the National Skill Standards
2 Board; and

3 (2) consolidation of existing guidelines on the construction, operation, maintenance,
4 and inspection of electric supply generation, transmission and distribution facilities such as
5 those established by the National Electric Safety Code and other industry consensus
6 standards.